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# **Corporate Social Responsibility Disclosure: An Examination of Framework of Determinants and Consequences**

Nasr Taha Hassan

A Thesis Submitted for the Degree of PHD

at the

Durham University/Durham Business School

## **Abstract**

This study presented a framework to explain corporate social responsibility disclosure (CSD) in terms of determinants and consequences. The study is dealing with quantity and quality of CSD in both annual and stand alone reports. The framework is based on legitimacy theory as appropriate theoretical background for CSD, and the main idea in this theoretical framework is that CSD is a function of social pressure on companies concerning their social responsibility.

The framework has started with explain the level of social pressure at the country level to explain the differences of the level of CSD among countries. It is argued that the interaction between economic level, culture and the level of corporate governance determine the level of social pressure in a given country. The level of CSD at the company level is determined according to two dimensions; the degree of social pressure that face each company and how each company responses to this pressure. It is argued that, on one hand, the interaction between corporate characteristics and media coverage of the company determine the degree of social pressure that face a company and on the other hand corporate governance mechanisms determine how each company responses to pressure. The last point in framework explains that the direct consequence for CSD is improving corporate social reputation.

The empirical results support, to large extent, the framework. At a country level, both cultural values and economic level determine the level of social responsibility disclosure in the country. Concerning determinants of CSD at a company level, it appears that quantity of CSD, and to lesser extent quality of CSD, can be determined according to the following variables: corporate size, type of activity, media pressure, board size, the presence of

corporate responsibility committee as a board committee, and ownership diffusion. With regard to the consequences of CSD, the empirical evidence indicates that CSD significantly influences corporate social reputation, while it has no impact on corporate market value.

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## Contents

Abstract	B
Acknowledgements	D
Contents	E
Tables	J
Figures	L
Chapter 1: Introduction	1
1. The rise of corporate social responsibility disclosure	2
2. Problem definition	4
3. Motivation of study and contribution to literature	6
4. Research questions	8
5. Methodology	9
6. Structure of thesis	11
Chapter 2: corporate social responsibility disclosure	12
1. Introduction	13
2. The nature of CSD	14
2.1 CSD information	17
2.2 Motivations of CSD	19
2.3 Historical background	20
2.4 Related concepts	21
2.4.1 Corporate social responsibility	21
2.4.2 Sustainable development	24
2.4.3 Socially responsible investment	26
3. CSD media	28
4. Disclosure quality	30
5. CSD in the UK	33
5.1 The role of government	35
5.2 CSR initiatives	36
5.3 CSR regulations	41
6. Summary	44
Chapter 3: literature review	45
1. Introduction	46
2. Determinants of CSD	47
2.1 General studies	49
2.1.1 Corporate characteristics	49
2.1.2 Degree of multinational activities	56
2.1.3 Media pressure	57
2.1.4 Corporate governance	61
2.1.5 Other studies	62
2.2 Special models	74
2.3 Determinants on the country level	76
2.4 Limitations of prior studies	79
3. Consequences of CSD	84
3.1 Corporate social reputation	85
3.2 Economic consequences	88
3.2.1 Social and financial performance	88

3.2.2	Economic consequences of CSD	93
3.3	Limitations of prior studies	102
4.	Summary	103
	Chapter 4: theoretical framework	105
1.	Introduction	106
2.	Integrated framework	110
3.	The countries' level	113
3.1	Factors determine social pressure	116
3.1.1	Economic level	116
3.1.2	Culture	118
3.2	Pressure groups	121
3.3	Social pressure	126
3.4	The level of corporate governance	127
4.	The companies level	130
4.1	Legitimacy theory	130
4.2	Suggested framework of CSD determinants	133
4.2.1	Corporate characteristics	134
4.2.1.1	Corporate size	135
4.2.1.2	Industry effect	136
4.2.1.3	Multinationality	137
4.2.2	Media pressure	139
4.2.3	Corporate governance	140
4.2.4	Corporate ownership	146
4.3	The consequences of CSD	148
4.3.1	Corporate social reputation	149
4.3.2	Market value	152
5.	Summary	156
	Chapter 5: methodology	158
1.	Introduction	159
2.	The quantity of CSD	160
2.1	The quantity of CSD in annual reports	160
2.1.1	Annual reports	160
2.1.2	Define CSD and its categories	162
2.1.3	Unit of analysis	165
2.1.4	Reliability of content analysis	167
2.2	The quantity of CSD in stand-alone reports	168
3.	Quality of CSD	169
3.1	The quality of CSD in annual reports	170
3.2	The quality of CSD in stand-alone reports	173
4.	The sample and statistical methods	176
5.	Pilot study	179
5.1	Reliability of disclosure index	180
5.2	Reliability of disclosure measurement	182
5.2.1	Reliability of measurement of the quantity of disclosure	184
5.2.2	Reliability of quality measurement	186
6.	Positionality	187
7.	Research ethics	189



8. Summary	191
Chapter 6: analysis of corporate social responsibility disclosure	192
1. Introduction	193
2. Descriptive statistics of CSD	193
3. Analysis of CSD in annual reports	203
3.1 Disclosure location in annual reports	207
4. CSD in different sectors	209
4.1 CSD categories in different economic sectors	213
5. The relation between different disclosure variables	217
6. Conclusion	219
Chapter 7: determinants at the country level	221
1. Introduction	222
2. Hypothesis development	222
2.1 Economic level	224
2.2 Cultural values	225
2.3 Corporate governance	228
3. Method	229
3.1 The sample	229
3.2 Dependent variable	229
3.3 Independent variables	230
3.4 Specific model	232
4. Results	232
4.1 Descriptive statistics	232
4.2 Correlations results	238
4.3 Regression analysis	241
4.3.1 Pooled negative binomial regression results	242
4.3.2 More analysis: cross sectional regression results	247
4.3.3 Sensitivity analysis (different measures)	249
5. Conclusion	250
Chapter 8: determinants of CSD	252
1. Introduction	253
2. Hypothesis development	253
2.1 Corporate characteristics	255
2.1.1 Corporate size	255
2.1.2 Type of activity	256
2.1.3 Corporate profitability	257
2.1.4 Multinationality	258
2.2 Media pressure	260
2.3 Corporate governance	261
2.3.1 Board size	261
2.3.2 Board composition. non-executive directors	262
2.3.3 The presence of corporate responsibility committee	264
2.3.4 Corporate ownership	264
3. Method	265
3.1 The sample	265
3.2 Dependent variables	266
3.2.1 Validity of disclosure measurement	266

3.3	Independent variables	268
3.4	Specific model	269
4.	Results	271
4.1	Descriptive statistics	271
4.2	Correlation results	275
4.2.1	Nonparametric tests	279
4.3	Regression results	282
4.3.1	Linear regression diagnostics	282
4.3.1.1	Normality of residuals	282
4.3.1.2	Heteroskedasticity	284
4.3.1.3	Multicollinearity	285
4.3.2	Poisson regression diagnostics	285
4.3.3	Panel data analysis	286
4.3.3.1	The quantity of disclosure	286
4.3.3.2	Quality of disclosure	295
4.3.4	More analysis	301
4.4	Sensitivity analysis (alternative measures)	306
4.5	Robustness of results	306
5.	Conclusion	308
	Chapter 9: consequences of CSD	311
1.	Introduction	312
2.	Hypothesis development	313
2.1	Corporate reputation	315
2.2	Market value	317
3.	Methodology	320
3.1	Empirical models and data	320
3.1.1	Social impact	320
3.1.2	Financial impact	323
4.	Results	327
4.1	Descriptive statistics	327
4.2	Social impact	329
4.2.1	Correlation results	329
4.2.2	Regression results	330
4.2.2.1	Cross-sectional regression results	330
4.2.2.2	Panel data analysis	332
4.2.3	Sensitivity analysis (alternative measures)	333
4.3	Financial impact	333
4.3.1	Profitability ratios	333
4.3.2	Corporate market value	334
4.3.2.1	Correlation results	334
4.3.2.2	Regression results	335
4.3.3	Sensitivity analysis	340
5.	Conclusion	340
	Chapter 10: conclusion	343
1.	Introduction	344
2.	Summary of findings and conclusion	346
3.	Limitations	353

4. Recommendations for future studies	353
References	355
Appendixes	I
Appendix 1: companies of the sample	II
Appendix 2: companies in pilot study	x
Appendix 3: sample of Simstat outputs 2005	XII
Appendix 4: sample of ReCal outputs 2005	XIV

## Tables

<b>Chapter 1</b>	
<b>Chapter 2</b>	
2.1 the importance of CSD media	29
2.2 disclosure quality ranking (Raar, 2002)	32
2.3 CSR Initiatives in Force in the United Kingdom	37
2.4 OFR	43
<b>Chapter 3</b>	
3.1 categories of CSD determinants (Adams, 2002)	48
3.2 Ullman' model for disclosure strategy	75
3.3 Magness' model for disclosure strategy	76
3.4 some of CSD comparatives studies	77
3.5 studies on relationship between CSP and CFP divided historically (Griffin & Mahon, 1997)	90
3.6 studies on relationship between CSP and CFP divided according to financial performance indicators (Dam, 2006)	92
<b>Chapter 4</b>	
4.1 Some differences between deductive and inductive approaches	107
4.2 cultural values and accounting dimensions	120
4.3 accounting values and accounting practices (Baydoun & Willett, 1995)	120
<b>Chapter 5</b>	
5.1 examples for the quality rating score	172
5.2 The sample	178
5.3 Statistical methods	179
5.4 The interpretation of the significance of Krippendorff's alpha	184
5.5 Reliability of quantity measurement 2005	185
5.6 Reliability of quantity measurement 2006	186
5.7 Reliability of quality measurement 2005	187
5.8 Reliability of quality measurement 2006	187
<b>Chapter 6</b>	
6.1 descriptive statistics of CSD	194
6.2 categories of CSD in annual reports	203
6.3 the incidence of CSD categories	205
6.4 analysis of CSD in different sectors	210
6.5 incidence of disclosure categories in different sectors	215
6.6 CSD categories in different sectors	217
<b>Chapter 7</b>	
7.1 descriptive statistics	233
7.2 the results of normality test of social disclosure at a country level	234
7.3 descriptive statistics according to economy type	237
7.4 correlation results	239
7.5 mean and variance of SD	241
7.6 likelihood ratio test	242
7.7 pooled negative binomial regression results	243
7.8 the results of examining hypotheses	247
7.9 cross-sectional Negative binomial regression results	248
<b>Chapter 8</b>	
8.1 the correlation results between CSD categories	267

8.2	the measurement of independent variables	271
8.3	Descriptive statistics	272
8.4	correlations results	275
8.5	Mann-Whitney test for type of activity	280
8.6	Kruskal Wallis Test for degree of multinationality	280
8.7	Kruskal Wallis Test for board size	281
8.8	Mann-Whitney test for the presence of corporate responsibility committee	281
8.9	Kruskal Wallis Test for media pressure	282
8.10	Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	285
8.11	the values of VIF	285
8.12	a likelihood ratio chi-squared statistic test	286
8.13	regression analysis of Quantity of disclosure	287
8.14	the impact on different variables of quantity of CSD	288
8.15	regression results concerning Quality of disclosure	295
8.16	the impact on different variables of quality of CSD	296
8.17	the results of examining hypotheses	301
8.18	regression results for different measures of quantity of CSD in annual report	302
8.19	regression results using total media pressure	303
8.20	regression results using independent non-executive directors	304
8.21	the regression results with addition variable about independence of CRC	305
8.22	Quantile regression results	308
Chapter 9		
9.1	corporate reputation descriptive statistics	328
9.2	correlation results between social disclosure and corporate reputation	330
9.3	Cross-sectional regression results for each year	332
9.4	Poisson regression with panel data	333
9.5	the correlation results between social disclosure and profitability ratios	334
9.6	the correlation results between social disclosure and corporate market value	335
9.7	Panel regression fixed effects	336
9.8	OLS regression analysis for each year	340

## Figures

Chapter 1	
Chapter 2	
2.1	CSD and its related concepts 28
2.2	CSR reports between G250, and N100 (KPMG) 30
Chapter 3	
Chapter 4	
4.1	the integrated theoretical framework 112
4.2	theoretical framework at the country level 114
4.3	Model of CSD in a specific country 130
4.4	suggested model of CSD determinants 134
4.5	expected consequences of CSD 148
Chapter 5	
Chapter 6	
6.1	graphical distribution of quantity of CSD in annual reports 196
6.2	graphical distribution of quality of CSD in annual reports 198
6.3	graphical distribution of quantity of disclosure in stand-alone reports 200
6.4	graphical distribution of quality score of stand-alone reports 202
6.5	disclosing companies for each category 207
6.6	disclosure location in annual reports 209
6.7	the level of CSD in different economic sectors 213
Chapter 7	
7.1	theoretical framework at the country level 223
7.2	the determinants at the country level model 232
7.3	graphically distribution of SD 235
7.4	modified theoretical model 251
Chapter 8	
8.1	theoretical framework of determinants at the company level 254
8.2	the determinants model 270
8.3	a kernel density plot 283
8.4	modified determinants framework at the company level 309
Chapter 9	
9.1	theoretical framework for consequences of CSD 314
9.2	social impact model 322
Chapter 10	
10.1	the suggested framework to explain CSD 346
10.2	modified framework to explain CSD 349

# Chapter 1

## INTRODUCTION

# Chapter 1

## Introduction

### **1. THE RISE OF CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE**

The impact of companies on society is a growing global concern; the expectations of consumers, employees, investors, and local communities on the role of businesses in society are increasing. Guidelines, principles, and codes are being developed for corporate conduct. Governments and non-governmental organisations (NGOs) are demanding increased transparency and accountability about both a company's daily operations and the impact of these operations on society. Professional organisations carry out social audits, governments legislate for mandatory social reports, rating agencies rank corporations, and companies themselves publish an increasing number of reports on their social performance. This attention to the impact of companies on society has led to the emergence of an important concept in business literature over the last three decades, corporate social responsibility (CSR).

Most definitions of corporate social responsibility describe it as constituting actions whereby companies integrate societal concerns into their business policies and operations; these societal concerns include environmental, economic, and social concerns. For companies to survive and grow, they have to undertake various socially desirable actions, and it is important that society recognises the compatibility of the behaviour of companies with its own ethical values. If companies fail to operate according to the boundaries set by the social norms, they face a threat to their survival. The CSR concept is closely related to the concept of sustainable development which depends on three key components: environmental protection; economic growth; and



social equity. As a consequence, close attention is paid to the concept of corporate social responsibility disclosure (CSD).

Corporate social responsibility disclosure provides information to the public regarding corporate activities that relate to the society, such as about reducing environmental impact, improving waste management, compliance with environmental regulations, and efforts to protect employees. By the 1980s, a large volume of literature had developed on environmental accounting building on diverse views from social accounting. In the 1990s, literature relating to the disclosure of social and environmental information in the form of what is commonly known as social and ethical accounting and auditing and reporting (SEAAR) developed. The emergence and increasing interest in social and environmental accounting and disclosure reflects the increasing demand for transparency driven by a number of factors, including:

- Societal interest in social and environmental issues has become increasingly mainstream.
- The development of the CSR field generally and of CSR standards in particular.
- Increasing demand for new and better information to meet the information needs of different stakeholders.
- Advances in communication technology.
- Investor interest in CSR performance as a business issue.
- Declines in the levels of trust afforded to some institutions.

Social and environmental accounting research is moving from the margins of the agenda of the accounting and management research community towards a central concern of national and international importance. This is reflected in the growing number of

studies in academic journals and books, and the growing number of papers presented at major national and international conferences such as the Centre for Social and Environmental Accounting Research (CSEAR) conferences in the UK and Australia, the Asia Pacific Interdisciplinary Research in Accounting (APIRA) conferences associated with Accounting, Auditing and Accountability Journal (AAAJ), the European Interdisciplinary Research in Accounting (IPA) conferences and the Critical Perspectives on Accounting (CPA) conferences associated with the Critical Perspectives on Accounting Journal (Parker, 2005: 844).

## **2. PROBLEM DEFINITION**

CSD is a voluntary activity and it is important to understand the following questions:

- Which companies disclose information about social and environmental activities?
- Which companies disclose more information than others?
- What are the benefits of CSD for companies?

Studies, which have examined the factors influencing the level of CSD, concentrate on the corporate characteristics as determinants of the level of CSD. These studies suffer from an important limitation in not presenting a clear theoretical background for choosing the determining factors examined. There are a number other limitations related to these studies: (1) a concentration on environmental disclosure which considers only one category of CSD; (2) a concentration on analysis disclosure in annual reports, while ignoring stand-alone reports, thereby providing an incomplete picture of CSD; and (3) paying scant attention to analysing the quality of CSD, which limits the understanding of the issue. The current study, in part, attempts to overcome these limitations, as it provides

a theoretical framework of determinants of the level (quantity and quality) of CSD in both annual and stand-alone reports. Within the theoretical framework, the study examines factors that did not receive adequate attention previously in the literature, such as the degree of multinational activities and corporate governance.

Furthermore, the literature to date has not given sufficient attention to the consequences of CSD. A number of studies have examined the impact of CSD on the corporate reputation and financial position of companies. However, these studies also suffer from the lack of a clear theoretical background. This study provides a theoretical framework for assessing the consequences of CSD. Within this theoretical framework, the study adds to the literature by examining the impact of CSD on corporate market value measured by Tobin's  $q$ .

This study provides a framework for the determinants and consequences of CSD based using legitimacy theory. The study by Salama (2003) examines both the determinants and consequences of environmental disclosure. This study suffers from a number of limitations, namely: (1) the provision of separate models for the determinants and consequences of disclosure without a theoretical framework to link the two aspects; (2) a concentration on environmental disclosure in annual reports; (3) the provision of a determinants' model based only on corporate characteristics as determinants of environmental disclosure, and derived from literature primarily from the mid-1980s; and (4) an examination of the impact of environmental disclosure on corporate reputation, while ignoring the analysis of economic consequences. The current study attempts to overcome these limitations by providing a clear theoretical framework for understanding the determinants and consequences of CSD.

### **3. MOTIVATION OF THE STUDY AND CONTRIBUTION TO LITERATURE**

Rizk (2002) argues that social accountability issues date back more than 30 years and a fundamental problem in the field of CSR research is that there is no standard, universal definition to provide a framework or model for the systematic collection, organisation and analysis of corporate data. The need to create a framework that can explain CSD in terms of both determinants and consequences remains an important concern. To explain why particular disclosures are made, or in describing how companies should make particular disclosures, reference is made to a particular theoretical perspective. In the area of social and environmental disclosure practices, recent research has tended to rely upon the approaches of legitimacy theory, and to a lesser extent, stakeholder theory, both of which have their roots in political economy theory. In line with previous literature, the suggested framework is based on legitimacy theory as the theoretical background.

Previous literature related to CSD has concentrated on developed countries, in particular the USA and the UK. International surveys and comparative studies indicate a significant gap between developed and developing countries in CSD practices, as CSD is considered a western phenomenon. As the purpose of this study is to present a framework to explain the CSD phenomenon, UK companies are chosen as the basis for the empirical study. UK companies provide best practices in the area of CSD, and UK business environments are considered suitable for the study of CSD and its related concepts, such as corporate social responsibility and sustainable development.

This study adds to CSD-related literature in various ways. The study develops a theoretical framework that explains CSD in terms of determinants and consequences in an integrated framework. Despite this framework being based on previous literature, it

presents a different approach to legitimacy theory, by presenting a new dimension on how companies respond to social pressure. The framework, from the perspective of determinants, suggests that CSD is a function of not only social pressure, but also of how companies respond to this pressure. The framework, from the perspective of consequences, suggests that CSD has a consequence at a social level, without a financial consequence.

Within this framework, the study casts light on the relationship between CSD and variables that did not receive adequate attention in previous studies, such as the degree of multinational activities, corporate governance practices and corporate market value. The study also presents two new variables to CSD literature: the presence of a corporate responsibility committee as a board committee; and Tobin's q. In addition, the study presents new measures for a number of variables: corporate size will be measured as the number of employees on the basis that employees are considered important stakeholders and are more related to the concept of CSD; types of activities measured as a binary variable as manufacturing and non-manufacturing companies on the basis that this division is more appropriate to CSD as a whole; and media pressure is measured, in line with previous literature, as the number of news-related items pertaining to a company, including on-line news. The study also presents a new method for measuring the quality of CSD in annual reports and presents an indicator for measuring the quality of disclosure in stand-alone reports.

Briefly, the study adds to literature in the following ways:

- Analysing a theoretical framework for determinants and consequences of CSD.
- Dealing with quantity and quality of CSD in both annual and stand-alone reports.

- Shedding light on the relationship between CSD and variables such as multinationality, corporate governance and corporate market value.
- Using various statistical methods.

#### **4. RESEARCH QUESTIONS**

The main limitation of prior studies is the lack of a clear framework that can explain CSD in terms of determinants and consequences. Therefore, the main research question is:

- What variables could represent a framework of determinants and consequences of CSD?

In analysing the main question, the study also answers a number of sub-questions.

First, questions concerning CSD:

- Is there a relationship between quantity and quality of CSD?
- Is there a relationship between either quantity or quality of CSD in annual reports and stand-alone CSR reports?

Second, questions concerning determinants:

- Do determinants have the same influence on quantity and quality of CSDs?
- What are the variables that have the strongest effect on CSD?

Third, questions concerning consequences:

- Are consequences the same for quantity and quality of CSDs?
- Does legitimacy theory, as a dominant theory in CSD literature, provide adequate explanations for the consequences of CSD?

## 5. METHODOLOGY

The purpose of this research is to present a framework that explains the phenomenon of CSD in terms of both determinants and consequences. In line with the objective, the study uses quantitative research, and is conducted mainly by adopting a deductive approach. This selection is based in accordance with the nature of the research topic. The distinction between quantitative and qualitative methods is based on the topic being studied. While the quantitative approach is objective and relies primarily on statistics and data, the qualitative approach is subjective and utilises language and descriptions (Jean Lee, 1992: 88).

In the deductive approach, the researcher formulates a particular theoretical framework and then tests it (Ali & Birley, 1999: 103). The deductive approach depends on specific steps as follows: (1) develop a theoretical framework; (2) variables identified for relevant constructs; (3) results analysis in terms of previous theoretical framework; and (4) outcome testing theoretical framework, according to whether hypotheses are accepted or rejected (Ali & Birley, 1999: 106). The deductive approach begins with statements that are assumed to be true and moves from a general rule to a specific solution (Belkaoui, 2004: 111). In line with the deductive approach, this research starts with the general statement that legitimacy theory is the most appropriate theory to explain CSD, and the main perspective underlying this theory is that CSD is a function of social pressure on companies in relation to CSR practices. Based on this general statement, the theoretical framework that explains CSD in terms of both determinants and consequences is developed. This theoretical framework is then presented in three empirical models which are statistically examined. These empirical models are closely related to the general

statement, as each model provides an answer for a specific question concerning the concept of social pressure, as follows:

- What is creating social pressure in a given country? In answer to this question, a suggested model presents an explanation for the determinants of CSD at the country level. A general argument underlying this model is that socio-economic factors in a country determine the awareness of the importance of CSR.
- Are all companies in a given country facing the same degree of social pressure and do all companies respond to social pressure in the same way? In answer to this question, a suggested model presents an explanation for the determinants of CSD at the company level.
- What are the benefits of CSD for companies? In answer to this question, a suggested model presents an explanation for consequences of CSD. The general argument underlying this model is that, in accordance with legitimacy theory, CSD adds to the corporate social reputation but without any direct economic benefits.

Each model contains a number of variables and it is tested by various statistical methods using a software package. The variables included in each model are derived from the general argument related to the specific model, while the statistical methods are determined by the nature of the data concerning the variables. Therefore, this study, according to the deductive approach, moves from a general argument, legitimacy theory, to a specific argument, the framework of determinants and consequences of CSD.

The focal point of this study is CSD which is measured through two types of documents: annual reports and corporate responsibility reports. The measurement of CSD, in particular in annual reports, is controversial. Content analysis technique is used



to measure both the quantity and quality of CSD in annual reports. Indicators are used to measure both the quantity and quality of disclosure in corporate responsibility reports.

## **6. STRUCTURE OF THESIS**

The study is structured as follows. First, the main phenomenon of study, CSD, is explained and previous studies are analysed to in order to determine their limitations. Second, the theoretical framework is developed and derived into empirical models. Then, the results of statistical analysis are presented and interpreted in the context of theoretical framework.

In line with the objective of study, it is divided into two main parts: the first develops the theoretical framework, while the second empirically examines the framework. The first part consists of four chapters. Chapter two is designed to provide a general view of the phenomenon of CSD, derived from previous studies. Chapter three focuses on the literature in relation to determinants and consequences of CSD, in order to raise the limitations of the previous studies. Chapter four presents an explanation of the theoretical framework. As how to measure CSD, in particular in annual reports, is controversial, chapter five explains the measurement process of CSD. Part two present the empirical results. Chapter six presents a deep analysis of the descriptive statistics of the results of CSD measurement. Chapters seven, eight and nine present the empirical results for each of the three empirical models derived from the theoretical framework. Chapter ten provides a summary of the findings of this research as well as a discussion of the limitations of the research and recommendations for further research.



# Chapter 2

CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE

## Chapter 2

### Corporate Social Responsibility Disclosure

#### 1. INTRODUCTION

The interest in corporate social responsibility disclosure (CSD) has increased with time. Today, as a range of stakeholder groups now demand information about social and environmental issues companies need to justify their activities to a wider public by increasing their communications on a range of issues and not just confining themselves to communicating about the economic dimensions of their operations (Daub, 2007: 75). CSD is a key tool for communicating with stakeholders regarding a company's social responsibility activities. It forms a central charter for public relations in communicating and creating mutual understanding, managing potential conflicts and achieving legitimacy (Golob & Bartlett, 2007: 1).

CSD, in most cases, is one of the forms of corporate voluntary disclosure<sup>1</sup> which has become of wide interest to researchers over the last three decades. There are a number of issues relating to CSD that have been addressed in accounting literature, which this chapter will elucidate. The objectives of this chapter are to:

- clarify the nature of CSD, its definition, historical background and related concepts;
- identify the disclosure media of CSD;
- identify the methods of measurement of quality of CSD; and
- identify the status of CSD in the UK.

This chapter provides a detailed answer to two simple questions: What is CSD? What are the aspects of this type of disclosure? This chapter was motivated by two concerns: (1) it is

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<sup>1</sup> Corporate voluntary disclosure can be defined as “disclosure in excess of requirements, representing free choices on the part of company managements to provide accounting and other information deemed relevant to the decisions needs of users of their annual reports” (Chau & Gray, 2002: 247).

important to provide a general explanation for the phenomenon that is considered a focal point of this study. (2) It discusses aspects of CSD which will be important in the rest of the study, such as CSD media and CSD quality.

The chapter is based on a review of a number of studies related to CSD. The chapter is structured as follows. Section 2 presents explanations of the nature of CSD, identifies motivations for CSD, its historical background, define some concepts that are closely related to it and define the information underlying the concept of CSD in order to explain the concept of CSD. Sections 3 and 4 present explanations of disclosure media and disclosure quality respectively. The final section explains the status of CSD in the UK.

## **2. THE NATURE OF CSD**

CSD can be defined as the provision of financial and non-financial information relating to a company's interaction with its physical and social environment as stated in corporate annual reports or corporate social reports (Hackston & Milne, 1996: 78). Social and environmental disclosure can typically be thought of as providing information relating to company's activities, aspirations and public image with regard to environmental, community, employee and consumer issues (Gray, et al, 2001: 329). Haron et al (2004) indicate that social disclosure can provide either positive information which presents the company as operating in harmony with the environment, such as stating that the company is conducting training programmes for employees or that waste management policies are being undertaken, or negative information which presents the company as operating to the detriment of environment, such as the inability to control or reduce pollution or failure to solve a social problem.

CSD is a voluntary disclosure in most cases. Gray & Milne (2002) argue that the voluntary approach tries to highlight two aspects:

- The natural environment and social justice are safe in the hands of business, and this arises because
- Such ideas are a mere extension of good business practices (Gray & Milne, 2002: 2).

Fukukawa, et al (2007) argue that voluntary disclosure of social and environmental information is criticised as biased attempts to manipulate public perceptions, and efforts to increase mandatory disclosures have been ongoing in several countries such as the UK and the USA.

Aaronson & Reeves (2002) argue that there is public pressure to develop corporate social responsibility (CSR) policies arising from the failure of voluntary disclosure. This public pressure acts as a driver for governments, as well as other institutions, to provide different accreditation mechanisms, guidelines and standards for CSR practices and reporting. However, these efforts do not attempt to make CSD mandatory, but seek to find the middle way to ground by which to hold companies accountable for their actions. Van der Lann (2004) indicates an emerging form of CSD, the solicited disclosure, in which companies are increasingly asked to account in various forms about their interactions with and impacts on society. Non-governmental organisations (NGOs), regulatory agencies, ethical or socially responsible fund managers, ratings agencies and other interested parties are requesting social information from companies. The difference between voluntary and solicited disclosure is the motive to provide the information. The motive for voluntary CSD comes from the management of companies, either in response to a threat to legitimacy or a need to account, while the motive for solicited CSD is a direct request from the identified stakeholders (Van der Lann, 2004: 9-10).

CSD is considered to be a western phenomenon; as a result the research has concentrated primarily on studies in developed countries.<sup>2</sup> There are some obstacles facing CSD in developing countries where the institutions, standards and appeals system, which support CSD in western countries, are relatively weak (Kemp, 2001). Chambers et al (2003) suggest a number of arguments which can explain the low levels of CSR in developing countries:

- CSR is a function of economic wealth.
- Civil society in developed countries stimulates CSR by generating greater societal demands and expectations of business responsibility.
- Western governance is more developed than in developing countries and thus encourages greater CSR.

Hope (2003) suggests a measure of enforcement based on five country-level factors: audit spending; insider trading laws; judicial efficiency; rule of law; and shareholder protection. Aerts et al (2004) applied this measure in order to explain the international differences in the demand for environmental disclosure across a sample of countries. The research found that USA has the strongest enforcement level, followed by Canada, the Netherlands, France, Belgium and Germany. In high enforcement countries, the mandatory disclosure was found to be highly regulated, resulting in higher levels of disclosure. Thus, North American companies, which operate in a more regulated context compared to continental European companies, disclose more environmental information related to expenditure and risk, abatement and remediation. Furthermore, Cormier & Gordon (2001) provide evidence that publicly owned companies disclose more social and environmental information than do the privately owned companies.

Solomon (2000) conducted a survey to identify aspects of environmental reporting and comparing these with financial reporting. The results suggest that the implicit conceptual

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<sup>2</sup> The literature generally is dominated by USA studies but there is also extensive literature on the UK, Australia and New Zealand. Evidence is also available from Canada, Malaysia, Singapore, Germany, Sweden, Mexico, Japan and India.(Gray et al,1995: 69).

framework for environmental reporting mirrors the explicit financial reporting conceptual framework in the UK in the following ways:

- The users of financial reporting are also the users of environmental reporting; the difference being in the greater emphasis attached to some users (employees, legislators, and regulators) and less emphasis attached to others (shareholders).
- All qualitative characteristics relevant in financial reporting are also relevant in environmental reporting.
- Verification is necessary for environmental reporting as for financial reporting
- Companies bear the cost of environmental reporting as with financial reporting.
- The most appropriate presentation of environmental reporting is within annual reports as the financial reporting.

However, there are a number of differences between environmental and financial reporting;

- The elements of environmental reporting are totally different from those of financial reporting.
- There is no consensus on who should perform verification for environmental reporting.

## **2.1. CSD Information**

There is no clear definition of what constitutes CSD information. Most studies define social and environmental information on the basis of an early survey of Ernst and Ernst (1978) that divides CSD items of information into the following categories:

- Environment (pollution control, prevention or repair of environmental damage, conservation of natural resources, and other environmental disclosures);
- Energy (conservation, energy efficiency of products, and other energy-related disclosures);
- Fair business practices (employment of minorities, advancement of minorities, employment of women, advancement of women, employment of other special interest

groups, support for minority businesses, socially responsible practices abroad, and other statements on fair business practices);

- Human resources (employee health and safety, employee training, and other human resource disclosures);
- Community involvement (community activities, health and related activities, education and arts, and other community activity disclosures);
- Products (safety, reducing pollution from product use, and other product-related disclosures); and
- Other social responsibilities disclosed (other disclosures, and additional information).

To investigate the demand for CSD by users, Rockness & Williams (1988) surveyed directors of ethical mutual funds and found a strong demand for many types of social information. Deegan & Rankin (1997) surveyed various classes of annual report users and found that a number of groups within society consider environmental issues to be material to their decision-making processes. More recently, Stratos (2004) presented an analysis of the demand of corporate responsibility information by capital market segments and indicated that a number of trends are emerging:

- The demands are evolving rapidly.
- Most segments of capital market pay at least a degree of attention to the specific environmental and, in fewer cases, social issues faced by companies.
- Social or environmental issues are important only in terms of risk to the company's financial health.
- Leading capital markets players analyse at least qualitatively, and in some cases quantitatively the environmental management and performance information of companies.

The absence of a definition and determination of CSD information has motivated a number of attempts to develop a clear framework for this information. In this context, Owen (2003)



argues that developing a global framework of CSR reporting is a desirable objective. One such initiative is the Global Reporting Initiative (GRI) developed in co-operation with the United Nations Environment Programme (UNEP). The mission of GRI is to develop and disseminate globally applicable sustainability reporting guidelines to enable organisations to voluntarily report on their activities in the social, environmental and economic dimensions. A similar initiative has also been introduced by (ISEA) (Owen, 2003). The standard is called Accountability AA1000 Assurance Standard and is similar to GRI. According to Hopkins (2003) there is evidence that GRI is more rapidly gaining ground and AA1000 has linked up with GRI. Several other international standards and guidelines have been introduced, of which three distinct but complementary categories reinforce CSR reporting:

- Codes of conduct (e.g. OECD guidelines, ILO declaration) which define standards of corporate behaviour;
- Management standards (e.g. SA8000, ISO14000) which offer framework for implementing socially responsible practices; and
- Screenings and rankings (e.g. Dow Jones sustainability index, FTSE4Good) which provides basis for responsible investing and comparing companies (Hopkins, 2003).

## **2.2. Motivations of CSD**

As CSD is a voluntary disclosure a number of studies have investigated the reasons that companies disclose social and environmental information. Deegan (2002) indicates that a number of drivers have been suggested from the research, including:

- There may be business advantages in appearing to do the right thing, which may be the key motivation rather than the acceptance of any social responsibilities by business.
- To attract investment funds internationally, as ethical investment funds are increasingly becoming part of the capital market.

- To comply with borrowing requirements, as increasingly lending institutions require borrowers to periodically provide various items of information about their social and environmental policies and performance.
- As a result of certain threats to the company's legitimacy.
- To manage particular stakeholder groups.
- To comply with societal expectations; a reflective view that compliance with the social license to operate or social contract is dependent on providing certain accounts of social and environmental performance.
- To comply with particular codes of conduct.
- The desire to comply with legal requirements; however, these are not a major driver because there is a shortage of legislation in relation to social and environmental disclosures in most countries.
- To forestall efforts to introduce more disclosure regulations; evidence has shown that one of the reasons that the Australian minerals industry introduced its code of environmental conduct was a fear that government might take the matter further and instigate the development of regulation.

### **2.3. Historical Background**

Rob Gray\* presents a historical review of social and environmental accounting and reporting (SEAR), the key points of which are:

- The 1970s saw fairly widespread interest in CSR and the first substantive experiment with social accounting and auditing.
- In the late 1970s the legal requirements in France (the Bilan Social) influenced corporate disclosure in UK with the potential addition of CSR to company law in the UK; however,

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\* Gray, R., "Social and Environmental Accounting and Reporting: from Ridicule to Revolution? From Hope to Hubris?- A Personal Review of the Field", CSEAR, Selected Discussion and Working Papers.

at this stage social accounting was not a part of accounting in general, and it was not coherent either theoretically or practically.

- In the late of 1980s social accounting and auditing was the province of the dispossessed and dissatisfied in relation to social and environmental concerns.
- By the 1990s the majority espoused green concerns with the result that the environmental agenda steadily evolved with mentions in accounting standards and areas of accounting education.
- By the mid-1990s social accounting re-emerged in the non-profit sector and then in the corporate sector.
- By the early 21<sup>st</sup> century social and environmental accounting has become almost mainstream.

## **2.4. Related Concepts**

It can be argued that CSD has developed mainly as a consequence of the attention that has been paid to three other concepts in the business world, CSR, sustainable development (SD) and socially responsible investment (SRI). CSR and SD are terms used to describe social and environmental contributions and consequences of business activity. In order to provide a fuller understanding of CSD, this section provides detailed explanations of each of these concepts.

### **2.4.1. Corporate social responsibility**

The growing incidence and sophistication of CSD has matched an increased interest in CSR on the part of consumers, socially responsible investors, employees, creditors, legislators and regulators (Brammer & Pavelin, 2006: 1169). Due to recent corporate scandals and the increasingly international interest in important issues concerning the roles and responsibilities of companies, pressures on companies to behave ethically have intensified and, as a result, companies face pressure to develop policies, standards, and behaviours that demonstrate their

sensitivity to stakeholder concerns (Brammer, et al, 2007: 229). In response to the changing market, CSR is becoming a vital part of staying competitive, partly because it helps to retain talented staff and to satisfy customers' expectations (Gardiner, et al, 2003). Academics consider the notion of CSR has been in existence since the 1950s, proliferating in the 1970s, and gaining increasing attention in the 1990s and the new millennium (Golob & Bartlett, 2007: 1).

According to Young et al (2003) "corporate social responsibility (CSR) was traditionally defined as business action which is not required by law, directed to alleviating or averting some social ill, and adjacent to the organisation's main for-profit activity" (Young et al, 2003: 1). CSR from the managerial perspective can lead to a better balancing of corporate objectives and societal risks; from the regulatory perspective, it offers the prospect of reflexive types of regulation; and from the financial perspective, it holds out the possibility of new types of deliberation, based around shareholder engagement with companies (Deakin & Hobbs, 2007: 75). McWilliams & Siegel (2001) state that the provision of CSR will depend on research and development (R&D) spending, advertising intensity, the extent of product differentiation, the percentage of government sales, consumer income, the tightness of the labour market, and the stage of industry life cycle. Wood (1991) presents an integrated definition of CSR as the configuration of the principles of social responsibility, processes of social responsiveness, and policies, programmes, and observable outcomes as they relate to the firm's societal relationships. Briefly, a firm committed to CSR has principles and processes in order to minimise its negative impacts and maximise its positive impacts on societal at all or on selected groups (Wood, 1991: 693). The European Commission defines CSR as a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with stakeholders on a voluntary basis (Brammer, et al, 2006: 1). According to Business for Social Responsibility (BSR), CSR is defined as

achieving commercial success in ways that honour ethical values and respect people, communities, and the natural environment (Tsoutsoura, 2004: 3). Also, according to the European Commission's green paper, CSR is essentially a concept whereby companies decide voluntarily to contribute to a better society and cleaner environment (Vuontisjarvi, 2006: 332).

To identify CSR at a practical level, the type of company responsibility, which extends the traditional responsibility of companies in maximising profit, should be clearly defined. In this context, Smith & Ward (2007) indicate that CSR needs to be understood and practised at two levels: operational; and conceptual. At the conceptual level, CSR will remain useful because it provides space for a higher-level activity in which the boundaries of business obligations to society can be examined, argued and refined. At the operational level, CSR is increasingly breaking up into a distinct series of sub-agendas: business and human rights; business and corruption; and business and tax avoidance (Smith & Ward, 2007: 18).

Carroll (1979, 1991) indicates the different levels of responsibility which companies respond to as the following:

- Economic level, companies produces products and services that society wants and sells them at a profit.
- Legal level, companies obeys all the laws and rules applied by the state.
- Ethical level, companies view it as their responsibility to satisfy society's expectations of business to go beyond basic legal requirements and what is just and fair, and their practice is reflective of this.
- Discretionary level, companies goes beyond stakeholder views of what is just and fair, and is an exemplary corporate citizen.

The growing awareness of CSR has added to the criticisms of the use of profit as an all-inclusive measure of corporate performance. In response, a number of major accounting

institutions (AICPA, NAA, and ICAEW) began to consider corporate social accounting in the mid-1970s (Hackston & Milne, 1996: 77). Furthermore, the growing attention given to CSR has seen the development of a CSR industry, with a wide range of economic activities, including:

- Socially responsible investment;
- Social rating by external agencies (KLD in the USA, EIRIS in the UK, ARESE/VIGEO in France, and SAM in Switzerland;
- Teaching on CSR;
- Consulting on CSR strategies or sustainable development;
- Communication of the CSR policy and public relations activities linked to CSR related issues; and
- Audit and certification of the social responsible statements and reports or stakeholder reports produced by companies (Gond, 2006: 9).

In more detail, the UNCTAD report (2003) defines the factors which govern corporations' relations with society as: main international initiatives for CSR; codes of conduct; international and national law; corporate governance; public pressure; reputational risk; and investor pressure.

It can be argued that CSR simply refers to the fact that companies take into account social issues when they plan and implement their activities. These social issues include: ethical behaviour; paying attention to employees; the environment; and the community as a whole. It is clear that CSR is closely related to CSD, which can be considered an interpretation of CSR activities.

#### **2.4.2. Sustainable development**

The concept of SD is used to motivate various political, legal and economic initiatives which seek to resolve the social, environmental and economic concerns faced by individuals,

organisations and governments. The most widely accepted definition for SD is found in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. According to Elkington (1999) this notion has added economic development to social and environmental accounting and reporting. In 2003, the consulting company Sytain Consult undertook a survey in Germany entitled ‘*Expectations of RWE: AG’s sustainability strategy from an external perspective*’. The survey respondents were from NGOs. The top issues for sustainable policies were ranked as follow: reduction of greenhouse gas emissions; public health and safety; efficiency in production; transport and consumption; transparency for customers; substitution for energy sources; and corporate governance and corporate citizenship (Aerts, et al, 2004: 12).

Bebbington (2001) states that SD has been considered within accounting literature in the context of SEAR because accounting for SD shares some of the concerns of SEAR (Bebbington, 2001: 143). However, Bebbington argues there are two main differences between SEAR and SD:

- The extent to which the present economic arrangements are challenged by each area differs.
- The position from which accounting for SD can be theorised may be different from that of SEAR.

The company’s adoption of sustainability is more than a public relations exercise. Sustainability takes place only when there is an active manager within a company (Szekely & Knirsch, 2005: 629). However, the factors that determine the sustainable performance of the company can be internal (mainly managerial and organisational) or external (stakeholders’ demands). In addition, at least three critical success factors are required to achieve sustainable performance: leadership and vision; flexibility to change; and openness for engagement (Szekely & Knirsch, 2005: 629-631). Sustainable company leaders capture other

qualitative, non-financial criterion as references for their performance, such as quality of management, corporate governance structure, reputation, human capital management, stakeholders' relations, and environmental protection.

Despite the blurred boundaries between corporate sustainability and CSR, two differences can be ascertained between the two concepts. First, while corporate sustainability considers the ultimate goal, CSR is an intermediate stage in which companies try to balance the competing forces that affect the bottom line: profit; people; and planet. Second, while CSR is communication oriented to people and organisations, corporate sustainability is concerned with the agency principle (e.g. value creation, environmental management, human capital management, etc.) (Lo & Sheu, 2007: 347).

#### **2.4.3. Socially responsible investment**

SRI is related to the growing interest in CSR. SRI involves a fund implementing ethical screens to ensure that it does not invest in firms that have poor records of CSR. There are a large number of ethical mutual funds in the USA, Canada, and Europe, which are growing in numbers by up to 70% per year. According to the USA social investment forum, over 10% of all equity investment is currently managed under the guidelines for SRI (Brammer, et al, 2006: 97). Ethically screened funds in the UK are valued between UK£50bn and UK£100bn, while socially-screened funds are estimated to be worth US\$2trn (Knoepfel, 2001). The growing interest in SRI has been motivated by regulatory changes, such as an amendment to the pension fund law, introduced in July 2000, which required pension fund trustees to disclose the impact of their operations on attitudes towards and the practice of SRI in UK pension funds. Another influencing factor has been the review of UK company law which called for greater accountability for social and environmental impacts (Solomon & Solomon. 2006: 566).

Gond (2006) provides three examples of institutional arrangements supporting SRI practices:



- The development of specific metrics and corporate social performance (CSP) measurement practices helping investors to select socially responsible companies
- The creation of ethical or socially responsible indexes such as the Domini Social Index in USA and the FTSE4GOOD in Europe.
- The development of rewards and/or incentive systems inside companies aligning classic company objectives with objectives related to CSR (Gond, 2006: 19).

Friedman & Miles (2001) examine the potential influence of the SRI sector on CSR practices. They argue that the SRI sector is characterised by a number of intermediaries and pioneer funds that actively lobby for changes in corporate behaviour, especially for increased levels of accountability and disclosure on environmental, social and ethical issues. However, their demands have not been met previously because companies have regarded them as a radical minority.

Despite the rapid growth of SRI,<sup>3</sup> it is still a small percentage of total funds invested. The Social Investment Forum's *2007 Report on Socially Responsible Investing Trends* identified that around 11% of assets under professional management in the USA are now involved in SRI<sup>4</sup>.

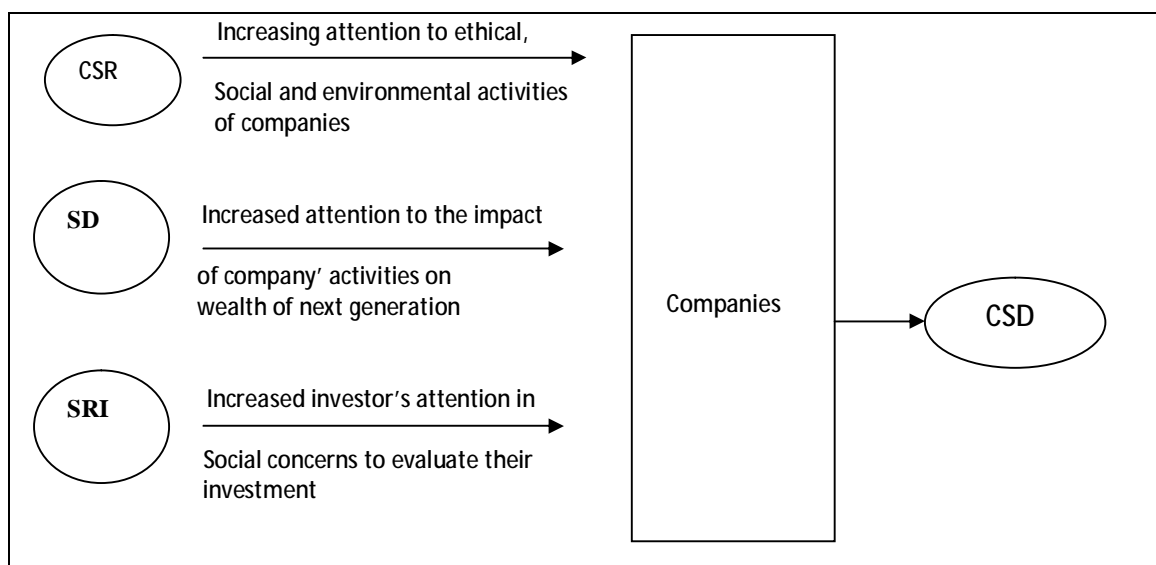
In summary, it can be argued that CSR is considered to be an intermediate stage which can lead to SD, while SRI influences both CSR and SD. These three concepts lead to, and influence, CSD. The following figure summarizes the impact of these concepts on CSD,

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<sup>3</sup> SRI assets rose more than 324% from US\$639bn in 1995 (the year of the first *Report on Socially Responsible Investing Trends* in the United States) to US\$2.71trn in 2007. During the same period, the broader universe of assets under professional management increased less than 260%t from US\$7trn to US\$25.1trn.

<sup>4</sup> Social investment forum, 2007 report on socially responsible investing trend in the United States

Figure 2.1: CSD and its related concepts



### 3. CSD MEDIA

A variety of media can be used to disclose social and environmental information, including: annual reports; advertisements or articles published detailing companies' activities; booklets or leaflets to address the social and environmental activities of the company; CD reports; community reports; environmental reports; labelling of products to promote environmental and other concerns; press releases; supplements to the annual report or produced at interim dates; video tapes; and websites (Jenkins & Yakovleva, 2006: 273).

This is supported by Campbell et al (2003) who indicate that companies may use media other than its annual report to disclose social and environmental information. For example, advertising was used extensively by tobacco companies in the UK until recently, and it is still used as a medium of corporate communications by other companies. Also, the internet is a powerful means for providing social information, as the website of a company has the potential to reach a much wider than its annual reports. ACCA (2001) indicates that there are three major methods to present the social, environmental and sustainability information through the web site:

- Piggy back, replication of the paper based report in electronic form.
- Stand-alone approach, complete reporting solely through the web site.
- Integrated approach, reports plus additional features and information (ACCA, 2001: 13).

To examine the importance of the various possible media for users, Danastas & Gadenne (2006a) surveyed NGOs as users for CSD and they provide a ranking in importance of disclosure media as the following.

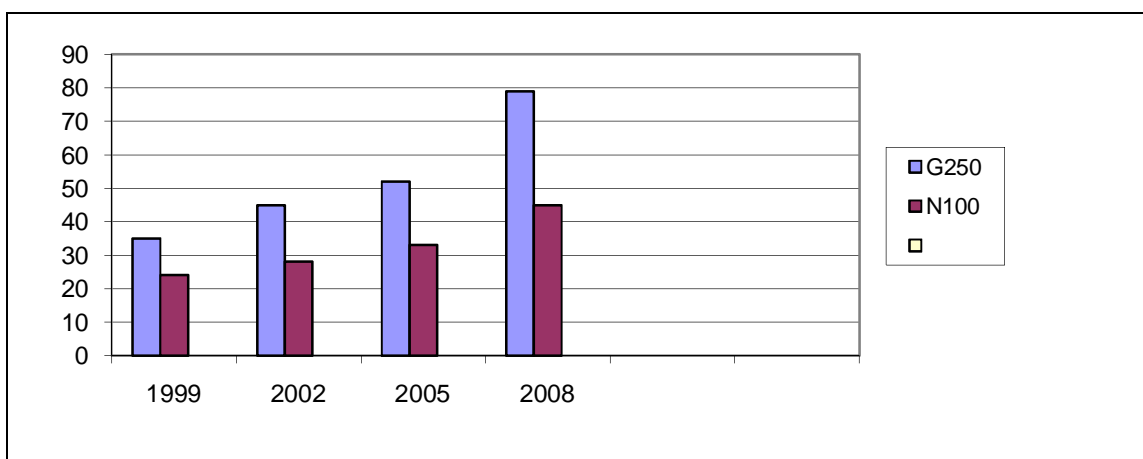
Table 2.1: the importance of CSD media

Ranking	By % of users	By degree of average use
1	Environmental reports(42,4)	Environmental reports
2	Website report(33,9)	Annual reports
3	Annual reports	Website report
4	Supplementary materials(30,5)	Media releases
5	Media releases(25,4)	Supplementary materials
6	Advertising(20,3)	advertising

Source: (Danastas & Gadenne, 2006 a)

The results show the great importance of corporate responsibility reports for users. Actually, the growing trend towards CSD is matched by the release of an increasing number of separate CSR reports. Jenkins & Yakovleva (2006) argue that the petro-chemical industry was the first sector to issue stand-alone reports starting in the 1980s, while the mining sector started producing environmental reports gradually from the 1990s. According to KPMG's triennial surveys (initiated in 1993) CSR reporting has been steadily rising and has increased substantially in recent years. In 2008, 79% of the G250 (global 250) companies and 45% of N100 (national 100) companies in 16 countries issued separate CSR reports, compared with 52% and 33% respectively in 2005, 45% and 28% in 2002, and 35% and 24% in 1999, see figure 2.2, (KPMG, 2002, 2005, 2008).

Figure 2.2: CSR reports between G250, and N100 (KPMG)



#### 4. DISCLOSURE QUALITY

The quality of CSD is not straightforwardly linked to the quantity of disclosure, of more relevance is if it refers to reports of specific actions, quantifies environmental impact, sets formal targets, and is subject to external audit (Brammer & Pavelin, 2006: 1169-1170). The quality of environmental disclosure varies widely across companies since the disclosure content is not strictly regulated (Aerts et al, 2004: 6). In determining disclosure quality, management considers the institutional context of the company, which means giving attention to the following matters:

- What other companies, either in the same industry or in the same country, do in that respect (imitation).
- What the company has done in the past (routine).
- Relevant regulations and laws governing disclosure (institutions) (Cormier, et al, 2005: 5).

Beattie et al (2004) indicate that there are two principle ways to measure quality of disclosure: use subjective analyst disclosure quality ranking; and use researcher-constructed disclosure indices, in which the amount of disclosure is used as a proxy for disclosure quality (Beattie, et al, 2004: 207). Hammond & Miles (2004) suggest the following attributes in relation to social disclosure quality: quantitative disclosure; third party verification;

establishment of appropriate targets and reporting progress against targets; warts and all reporting; the adoption of reporting guidelines and standards; the ability to accurately assess performance from disclosure; clear statement of vision from chief executive; good coverage of significant issues; wide access; reporting of normalised data; and awards/accolades (Hammond & Miles, 2004: 69-71).

The measurement of disclosure quality is considered a difficult task. This is because there is an unresolved theoretical debate around the concept of quality itself, and consequently, it is difficult to determine a clear and accepted disclosure quality measurement. In addition, the measurement of disclosure quality appears to suffer from subjectivity.

Previous studies have concentrated on using a ranking system to measure CSD quality. In this context, Robertson & Nicholson (1996) suggest the three-levels scoring system based on a qualitative hierarchy of disclosure:

- First level, which is general rhetoric. These are statements of CSR across a range of annual reports from different companies read as though they were written by the same person, and are considered to be decorated items and are somewhat vague and so general as to be meaningless as they are not backed by specific objectives and actions.
- Second level which is the specific endeavours. This relates to CSR initiatives (policies and activities) that are specifically tied to the company and its operating environment.
- Third level, which is the implementation and monitoring of social responsibility programmes providing details of annual social and environmental audit or review processes.

This hierarchical model has been used to measure the quality of CSD by researchers such as Toms, (2002), Salama (2003) and Hasseldine et al, (2005).

Similarly, Cormier et al (2005) measure environmental disclosure quality by rating based on a score of one to three allocated to specific disclosures: one for items discussed in general,

two when an item is described specifically, and three for an item described explicitly in monetary or quantitative terms (thus allowing for an assessment of its relative importance). Raar (2002) uses a weighting system which evaluates the quality of disclosure for the individual industry and on a group basis. In his study; he develops a weighting and ranking system to evaluate the quantity and quality of information. For example, the category of policies contained: the nominal value ‘if there is any information relating to policies?’; an ordinal variable ‘how much?’; and a continuous variable ‘how was it measured?’. The ranking system is then used to evaluate the quality of disclosure consisting from seven points<sup>5</sup> as following table:

Table 2.2: disclosure quality ranking (Raar, 2002)

Quality ranking	Definition of quality
1=monetary	Disclosure in monetary/currency terms
2=non-monetary	Quantified in numeric terms of weight, volume, size, etc. but not financial/currency
3=qualitative only	Descriptive prose only
4=Qualitative and monetary	Descriptive prose and currency
5=qualitative and non-monetary	Descriptive prose and numeric terms
6=monetary and non-monetary	A combination of currency and numeric terms
7=qualitative, monetary and non-monetary	Descriptive prose, financial, and numeric terms

The lowest score in this ranking is 1: this information is based on monetary information alone and would be insufficient for stakeholders to make informed decisions relating to environmental issues. The highest score is 7: this information provides a combination of discussion on environmental objectives, and results in qualitative, non-monetary and monetary terms and is considered to be more meaningful to help stakeholders’ decisions by linking disclosure, environmental performance and economic performance.

<sup>5</sup> It is similar to ranking system used by Gamble et al (1995) to assess the quality of annual report disclosure which consists of seven points: 1= journal entry; 2 = footnote; 3-5 = violation cited; 4 – 6 = short qualitative disclosure; and 7 = extended qualitative disclosure.

Walden & Schwartz (1997) use a four elements index to assess the quality of environmental disclosure:

- Effect, significant or not significant;
- Quantification, monetary or not monetary;
- Specificity, specific as to actions, persons, events, or places, or not specific; and
- Time frame, past, present, or future.

In addition, Van Staden & Hooks, (2007) developed a 5-point scale to assess the quality of environmental disclosure, this quality scale as the following,

Scale	Description
0	No disclosure
1	Minimum coverage, little detail-general items, a anecdotal or briefly mentioned
2	Descriptive: the impact of the company or its policies was clearly evident
3	Quantitative: the environmental impact was clearly defined in monetary terms or actual physical quantities
4	Truly extraordinary: benchmarking against best practice

## 5. CSD IN THE UK

The status of CSD in UK is closely associated with the status of CSR. The UK is considered to be one of the leading practitioners in the area of CSR and contributes to CSR thinking and practice. Matten & Moon (2004) compare CSR in Europe with the USA and propose a conceptual framework of explicit versus implicit CSR. They define explicit CSR, as in the USA, where companies volunteer to address important social and economic issues through their CSR policies, while in Europe including the UK the responsibility for these issues is undertaken as a part of a company's legal responsibilities and thus CSR is implicit (Matten & Moon, 2004). Williams & Aguilera (2008) indicate the difference between the UK and the USA as the emphasis given in the two countries' capital markets to companies' social and environmental roles. Legal factors include more compulsory disclosure of social and environmental information by publicly listed companies in the UK than in the USA. Institutional factors include:

- Differences in the composition of institutional investors in the two markets with a higher percentage of institutional investors in UK than in USA.
- Soft low encouragement in the UK by the highly-influential Cadbury Commission of Institutional Investor Engagement with portfolio companies.
- Encouragement of attention to CSR issues by the institutional shareholders committee which represent 80% of institutional investment in the UK.

In line with this increasing attention to CSR, similar attention has been paid to CSD. Haron et al (2004) argues that there is a general rise in the UK in the proportion of disclosures of social and environmental information; this was linked to the increase in the mandatory disclosure and to the stability of voluntary disclosures. At the end of the 1970s, CSD could be highlighted on one page of employee-related disclosure which includes disclosures on charitable donations. Although employee-related disclosure is still the majority of social disclosure in the UK, disclosure now covers a wider range of issue pertaining to employees. In addition, community and environmental disclosure has grown significantly. Between 1979 and 1991, the level of CSD was raised by 4 times because of changes in regulations which made disclosure of a number of issues mandatory.

Howland & Foo (2003) compare environmental reporting between the UK and the USA. Their findings show that:

- More companies in UK produce environmental disclosures than in the USA.
- Concerning the location in the annual report of the disclosure of environmental information, in the UK the most prevalent means of disclosure is a separate section, while most American companies disclosed the information in the management discussion and analysis section.
- There is a different emphasis on environmental items; 89% of UK companies disclosed information on environmental awards but only 33% of American companies did so, while



72% of USA companies disclosed environmental regulation information but only 37% of UK companies did so.

Cooper & Owen (2007) state that recent developments in the UK provide the opportunity to re-visit claims about CSD:

- First, there has been a dramatic quickening of the pace in terms of companies producing stand-alone social and environmental reports.
- Second, the prospect of mandatory reporting was raised by the Department of Trade and Industry's publication of draft regulation on the operating and financial review.

The importance of the CSR concept in the UK has been supported by drivers which also influence the status of CSD. These drivers include: the role of UK government; the launch of a number of CSR initiatives; and the presence of regulations related to the concept of CSR.

### **5.1. The Role of Government**

The UK government has developed a CSR strategy which was announced in the CSR report (Department of Trade and Industry, 2002). UK government developed three pillars to promote CSR practices amongst the business sector:

- Companies should recognise that their activities have a wider impact on the society;
- Therefore, the companies should take account of the economic, social, environmental and human rights impact of activities; and
- The companies should seek to achieve benefits by working in partnership with other groups.

Bichta (2003) argues that the UK government considers that CSR should have economic foundations, therefore companies should preserve the interests of shareholders and explore new means of improving economic performance that exceed legal requirements. The concept of CSR has attracted the interest of government through:

- In spring 2000, the UK government appointed the world's first minister for CSR.

- The government launched its CSR academy to promote and integrate CSR values into general management training and education.
- The UK parliament has two all-party groups on corporate citizenship; one group on CSR and one group on SRI.
- The UK government supports domestic businesses taking account of their social and environmental impacts wherever they operate—locally, regionally and internationally. To support businesses, a number of funded programmes designed to help companies increase their resource efficiency including ([www.csr.gov.uk](http://www.csr.gov.uk));
  - Envirowise programme (waste and water). [www.envirowise.gov.uk](http://www.envirowise.gov.uk)
  - Action energy/carbon trust (energy). [www.actionenergy.co.uk](http://www.actionenergy.co.uk)
  - Transport energy (transport). [www.transportenergy.org.uk](http://www.transportenergy.org.uk)
- The UK government gave a number of commitments at the World Summit on Sustainable Development (WSSD) in Johannesburg in September 2002. As part of the commitment on sustainable production and consumption, the government has pledged to ensure that the UK£13bn worth of goods and service it buys every year are sustainable.

## 5.2. CSR Initiatives

The attention to CSR has resulted in the emergence of a number of initiatives and regulatory changes that promote CSR. Rizk (2003) argues that the UK accounting system can be viewed as a haphazard response to environmental changes rather than a systematic process of change, which has enabled the development of the breadth and width of CSR initiatives. Many CSR initiatives have been appeared, including:

- The SIGMA project which published guidelines for organisations looking to contribute to sustainable development.
- Acon trust guidelines on environmental standards to support small- and medium-sized companies.

- The Extractive Industries Transparency Initiative (EITI) to improve transparency in the payments made by companies operating in the sector to ensure the revenues received by poorer countries will support growth and stability in those countries.
- The PharmaFutures project that assists pension fund managers in the pharmaceutical sector in examining the sustainability of the existing business models.
- The Green Technology Initiative which appears to be a UK version of the Green Grid, the consortium of IT companies and professionals. This initiative includes IT equipment outside the data centre and aims to reduce the carbon footprint.
- The green building code which was launched by the UK property sector to tackle the harmful effects of commercial property on the environment.

Rizk, 2003, presented CSR initiatives in UK in the following table;

**Table 2.3: CSR Initiatives in Force in the United Kingdom**

Initiative	Overview of Regulation
OECD Convention on combating the bribery of foreign public officials in international business transactions	The Convention came into force in 1999 and aims to prohibit the bribing of foreign public officials in order to obtain or retain business or other improper advantage in the conduct of international business (Article 1:1) The UK ratified the Convention on 14 December 1998
Anti-terrorism, Crime and Security Act	In 2002 the UK law codified the existing common law and, in fact, extended it beyond the OECD Convention requirements. UK companies and nationals (including directors) can now be prosecuted in the UK for corruption offences wherever they take place in the world and whether they involve public officials or the private sector
Income and Corporation Taxes Act	Amendments were made to the Act, which came into force in July 2002, to prevent payments made outside the UK which constitute a criminal offence if made within the UK as being treated as tax deductible
United Kingdom Listing Authority's ("UKLA") Combined Code: Principles of Good Governance and Code of Best Practice	In the early 1990s there were initial calls for increased transparency and greater corporate governance. This resulted in a number of business-led initiatives that addressed the largely financial related aspects of governance, which culminated in the UKLA's Combined Code: Principles of Good Governance and Code of Best Practice (the "Combined Code"). The 1999 Turnbull Report further expanded the Code and provided guidance for directors on the internal control requirements of the Combined Code. The Turnbull Guidance on internal control involves Boards identifying and reviewing the risks faced by their business; introducing monitoring and control processes and reporting annually to shareholders on compliance.
Forge II Guidelines on CSR Management and Reporting for the Financial Services	The Forge Guidelines, launched November 2002, are voluntary guidelines developed by leading financial services institutions together with the Association of British Insurers and the British Bankers Association. Built on earlier sector environmental management and reporting guidelines, they provide best practice guidance on developing and implementing a CSR management and

	reporting framework.
The Association of British Insurers Guidelines	These guidelines, which were issued in October 2001, contain recommendations on how to improve disclosure by inviting companies to state their approach to CSR and encourage companies to adopt the best practice when responding to external social, ethical and environmental risks.
Directors' Remuneration Report Regulations 2002 <sup>5</sup>	The Regulations, which came into force on 1 August 2002, provide that in future, the annual report will be required to include details of: directors' remuneration; individual directors' remuneration packages; the company's remuneration policies; and information regarding the role of the Board and the remuneration committee.
The London Principles	These guidelines were developed from a project commissioned by the Corporation of London to examine the role of the UK financial services sector in promoting sustainable development. The corporation signed a memorandum of understanding to promote the guidelines on 30 August 2002. The guidelines cover the areas of economic prosperity, environmental protection and social development.
US Sarbanes-Oxley Act 2002	On 30 July 2002 the Sarbanes-Oxley Act of 2002 was signed into force in the US, the most comprehensive series of amendments to the US federal securities laws since the 1960s. Many of the Act's requirements are being implemented through the rulemaking procedures of the US Securities and Exchange Commission (the "SEC"). The Act attempts to reinforce the enforcement powers of the SEC through stiffer penalties. The Sarbanes-Oxley Act applies to companies (US and non-US) with securities registered under or otherwise required to file reports with the SEC pursuant to the US Securities Exchange Act of 1934, as amended. The Act does not apply to those companies who have certain reporting exemptions. The provisions to note are those requiring that CEOs and CFOs certify company financial statements; that CEOs and CFOs forfeit their performance bonuses and profit on stock sales in certain circumstances; the prohibition of loans to officers and directors; enhanced responsibilities for audit committees; auditor independence; the restriction on trading by company directors and executives; additional company financial disclosures; the regulation of insider transactions; and "whistleblower protection" for employees who provide evidence of accounting problems or other fraud related situations involving their employer.
OECD Guidelines for Multinational Enterprises	The guidelines were first adopted by participating Governments in 1976 and amended in 2000. They seek to express standards of behaviour expected by OECD Governments of multinational enterprises based in, or operating in, their territory. The OECD guidelines were amended in 2000. Under the Guidelines, adhering countries are required to establish a National Contact Point ("NCP") to handle enquiries concerning all matters covered by the Guidelines. The UK NCP is an interdepartmental body based in the International Investment Policy Unit of DTI
The Global Compact	To date 82 companies have committed to the nine principles of the UN's Global Compact. At the World Economic Forum in Davis on 31 January 1999, UN Secretary-General Kofi Annan challenged world business leaders to "embrace and enact" the Global Compact, both in corporate practices and by supporting appropriate public policies.
Global Reporting Initiative	The initiative was formally inaugurated in April 2002. GRI is an

	international, multi-stakeholder effort to create a common framework for voluntary reporting on an organisation's activities. In November 2002, GRI entered into a new cooperative framework with the UN's Global Compact such that companies endorsing the Global Compact are encouraged to use GRI reporting to fulfil their requirements.
Ethical Trading Initiative	The ETI is a partnership of companies, non-governmental organisations, and trade unions working to identify and to promote ethical trade.
Business in the Community's Corporate Social Responsibility Index	On 23 September 2002, questionnaires for the first Corporate Responsibility Index and the 7th Business in the Environment Index were issued. FTSE 100, FTSE 250 and equivalent internationally listed groups were invited to participate in the survey. Individual company results remain confidential to the company, while top-line results are published annually in two summary reports. The Index is intended to measure a company's performance on how it integrates corporate responsibility within its core business practices and on its management performance across the key areas of environment, workplace, community and marketplace.
EU Rapporteur	Richard Howitt MEP is the European Parliament's Rapporteur on the European Commission's Green Paper on Promoting a European Framework for Corporate Social Responsibility 2001.
Minister for Corporate Social Responsibility	This new post was created in March 2001, coinciding with the launch of "Society and Business" which provides a business case for CSR and associated information. The Minister for corporate social responsibility is currently Stephen Timms MP.
New Corporate Volunteering Initiative	This was announced in the Pre Budget Report in November 2002 as a joint Treasury and Home Office financial scheme to help young British volunteers from lower income backgrounds take a year out after school to undertake community service.
International Labour Organisation Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy	This invites employers and workers organisations and multinational enterprises to observe principles in the fields of employment, training, conditions of work and life, and industrial relations, on a voluntary basis.
Fundamental ILO Conventions	These are identified as being fundamental to the rights of human beings at work irrespective of the levels of development of individual Member States. Primary responsibility for implementation lies with the Member States of the ILO but this could, in turn, impact business. The UK has ratified all the fundamental conventions.
ILO Declaration on Fundamental Principles and Rights at Work, 1998	This declaration requires all Member States that have not ratified the fundamental ILO Conventions nevertheless to promote the following principles: <ul style="list-style-type: none"> <li>· Realisation of a freedom of association and recognition of the right to collective bargaining;</li> <li>· Elimination of all forms of forced or compulsory labour;</li> <li>· Effective abolition of child labour; and</li> <li>· Elimination of discrimination in respect of employment and occupation.</li> </ul>
Working Time (Amendment) Regulations 2001	The Regulations amended the Working Time Regulations, removing the 13-week qualifying period for holiday pay and substituting it with the right to take one-twelfth of the annual leave for each month worked, rounded to the nearest half day.
Race Relations Act (Statutory Duties) Order 2001	The Order, which came into force on 3 December 2001, places all public bodies under a statutory duty to promote racial equality.
Maternity and Parental Leave (Amendment) Regulations 2001	These amendments to the existing regulations came into force on 10 January 2002. All parents with children, under the age of five as at 15

	December 1999 are eligible to take parental leave. Parents of disabled children are entitled to take up to 18 weeks' leave.
Employment Act 2002	The Act, which came became law on 8 July 2002, makes provision for statutory rights to paternity and adoption leave and pay and paves the way for amendments to the law relating to statutory maternity leave and pay, as well as introducing a right to request flexible working arrangements.
ISO 14001	This is an international standard, which specifies the requirements for an environmental management system ("EMS"). ISO 14001 is a management tool, which organisations of any size and type can use to help them control the impact on the environment of their activities, products and services in a structured and systematic way.
Making a Corporate Commitment (MACC 2)	MACC 2, a Government initiative, invites companies and public sector organisations to commit to setting quantified targets for improving resource efficiency and environmental performance and reporting on these targets. It covers greenhouse gas emissions, waste and water. MACC 2 is voluntary.
Environmental Reporting Guidelines	The Department of Environment, Food and Rural Affairs have produced a number of guidelines to assist companies on reporting, including General Guidelines on Environmental Reporting and guidelines specific to Greenhouse Gas Emissions, Waste and Water Use. <sup>24</sup> They each provide details as to what a company should be aiming to include in its annual report should the company wish to report voluntarily.
Health and Safety at Work Act (1974)	This Act imposes duties on employers to ensure the health and safety of their employees and to ensure that the health and safety of other persons is not adversely affected by the employer's undertaking.
Directors' Health and Safety Responsibilities	In July 2001, the Health and Safety Commission published new guidance on the health and safety responsibilities for company directors and the board members of public sector and voluntary organisations. Although not law, compliance with the guidance will normally be enough to demonstrate legal compliance.
Corporate Manslaughter (common law offence)	Manslaughter charges are increasingly being brought in "death at work" cases against both companies and individuals.
Pensions Act 1995 and the Occupational Pension Schemes Amendment Regulations (1999)	In July 2000, the Pensions Act 1995 was amended, significantly affecting the world of investment. Pension fund trustees must now state the extent to which they take social, environmental, and ethical considerations when they invest money.
Dow Jones Sustainability Index	The Dow Jones Sustainability Indexes were set up to meet the financial market's demands for indexes to benchmark the performance of investments in sustainability companies and funds. The indexes are provided by Dow Jones in Association with SAM Sustainable Asset Management and STOXX Limited
FTSE4Good	There are eight indices in the FTSE4Good series (all available in real-time): four benchmark indices (FTSE4Good UK, FTSE4Good Europe, FTSE4Good Global Index, FTSE4Good US Index) and four tradable indices (FTSE4Good UK 50, FTSE4Good Europe 50, FTSE4Good USA 100, FTSE4Good Global 100). The FTSE4Good bases entry on its Selection criteria cover three areas: working towards environmental sustainability; developing positive relationships with stakeholders; upholding and supporting universal human rights.

Source: Rizk, 2003:

KPMG (2005) presents the main standards and guidelines on corporate management and reporting in the UK:

- The Department for Environmental, Food and Rural Affairs (DEFRA) published general guidelines for environmental reporting on greenhouse gas emission, on waste and on water.
- The Public Environmental Reporting Initiative (PERI) provides a tool for companies to produce a balanced perspective on their environmental policies, practices and performance.

Furthermore, development of good corporate governance practices in the UK has been an important factor in increase attention on CSR, as the presence of a well-formed corporate governance programme should take care of most CSR issues. Corporate governance has become an important issue in many countries but the response has varied from legislative action such as the Sarbannes-Oxley Act in the USA, to the adoption of best practices such as in the UK (Barako, et al, 2006: 108).

The drivers that have increased attention to corporate governance in the UK include;

- The collapse of important businesses such as Polly Peck, BCCI, and Barings.
- Changing patterns of share ownership which has resulted in higher levels of ownership by institutional investors.
- Institutional investors are increasingly seeking to diversify their portfolios.
- Technological advances in communications and markets generally.
- Business increasingly seeking external funds.
- Within a country, good corporate governance helps to engender confidence in the stock market and hence in the economic environment as a whole (Mallin, et al, 2005: 533).

### **5.3. CSR Regulations**

In addition to CSR initiatives, CSR in the UK is related to regulatory aspects. There are laws covering issues such as the minimum wage and health and safety; however, there are no

regulations covering overall disclosure of environmental or community impacts. The regulations that cover aspects related to CSR are:

- The Employment Act 2002 which provides more choice and support to balance childcare and work in ways that benefit everyone; employers, employees and children.
- Environmental legislation introduced new regulatory regimes such as Pollution Prevention and Control (PPC).

A company law review was established in 1998 to undertake a fundamental review of British company law. This long-term review, which was launched by UK Department of Trade and Industry (DTI), opened up the debate about if the law should protect the interests of shareholders or all stakeholders (Williamson & Lynch-Wood, 2008: 124). The approach of company responsibility through the review is that “the company must retain overall responsibility to shareholders but this should be understood in a rather inclusive way” (Bichta, 2003: 43). The final report of review recommends that companies should be required to prepare and publish an Operating and Financial Review (OFR) as part of their annual report. The primary purpose of OFR is to improve transparency in the interest of better corporate governance. Williamson & Lynch-Wood, (2008) presented “the most important provisions relating to social and environmental information” in the following table;



Table 2.4: OFR

Who	What	Auditing
Quoted companies must produce an OFR	<p>To the extent necessary to comply with the general requirements of the OFR, the review must include:</p> <ul style="list-style-type: none"> <li>• Information about environmental matters (including the impact of the company on the environment);</li> <li>• Information about the company's employees;</li> <li>• Information about social and community issues;</li> <li>• Information about the policies of the company in each of these areas;</li> <li>• Information about the extent to which those policies have been successfully implemented;</li> <li>• Analysis using financial and, where appropriate, other key performance indicators, including information relating to environmental matters and employee matters</li> </ul> <p>If the review does not contain this information and analysis it must state which kinds of information and analysis it does not contain.</p>	<p>The auditors must state in their report:</p> <ul style="list-style-type: none"> <li>• Whether in their opinion the information given is consistent with those accounts</li> <li>• Whether any matters have come to their attention which are inconsistent with the information given in the review</li> </ul>

Source: Williamson & Lynch-Wood, 2008: 131.

The Companies Act 2006 requires publicly-listed companies to report on the following issues where they are necessary to understand the company's business:

- Environmental matters (including the impact of company's activities on the environment);
- The company's employees;
- Social and community issues; and
- Risks down company supply chain.

Also, the law extends directors' duties to consider the impact of their business operations on the community and the environment.

KPMG (2005) presents a summary of mandatory requirements in the UK:

- The Operating and Financial Review (OFR) requires all UK-listed companies to provide a narrative within their annual reports on the company's strategies, performance, future plans and key risks which may include ethical, social and environmental aspects.
- The combined code requires companies to report on governance and internal controls, which cover, among other things, material non-financial issues.

## 6. SUMMARY

The following points summarise the aspects of CSD under discussion:

- CSD concerns the information, voluntarily (to a large extent), provided by companies regarding their activities associated with their responsibilities towards the environment and society as a whole.
- CSD is considered to be a reflection of a number of recent developments throughout the business environment: CSR; SD; and SRI.
- Various mediums are used to disclose CSR information, including annual reports, and, increasingly, the use of separate corporate responsibility reports.
- The literature points to developed countries becoming more interested in CSD in comparison with other countries.
- A number of researchers are interested in measuring the quality of CSD in annual reports.

The predominant method employed in measuring this quality is by using a ranking system, which, as a general rule, is based on differentiating between general information and information that reports specific activities.

The considerable interest among researchers in CSD includes a number of studies that analyse the determinants and consequences of CSD. This aspect will be explored in the next chapter.

# Chapter 3

LITERATURE REVIEW

## **Chapter 3**

### **Literature Review**

#### **1. INTRODUCTION**

The previous chapter related to general literature on CSD, therefore this chapter is on literature related to determinants and consequences of CSD. The academic literature is particularly concerned with three questions; which, why and what. The first question is: Which companies seem more interested in providing information on their social responsibilities? To answer this question, part of the literature provides an empirical analysis of the factors (determinants) affecting CSD. The second question is: Why are companies interested in social and environmental disclosure? Some studies indicate interest in explaining the motivations of companies to disclose social and environmental information. The third question is: What are the benefits (consequences) of this disclosure to the company? In this context, part of the literature has focused its attention on studying the consequences of social and environmental disclosure.

This chapter is based on a review of previous studies related to determinants and consequences of CSD. The objectives of this chapter are:

- To analyse previous studies related to determinants and consequences of CSD, and to define the limitations of these studies,
- To cast light on some variables that did not receive adequate attention in previous studies.

The importance of this chapter is that it represents a basis on which to recognise a gap in previous literature and develop research questions. Limitations of previous studies also

provide a basis for defining some concerns that should be taken into account in the development of this study. The chapter proceeds as follows: the second and third sections provide a presentation of studies that focus on determinants, and consequences of CSD respectively.

## **2. DETERMINANTS OF CSD**

Analysis of disclosure determinants is a major consideration in accounting literature. Researchers attempt to answer two major questions. First, what attitudes do companies adopt toward accounting disclosure, either general or specific? This question leads to analysis of the disclosure level. Second, why do some companies disclose more, or less, information than others? This question leads to analysis of disclosure determinants. Because CSD is a voluntary activity, it is important to understand which companies disclose information about social and environmental activities, or which companies disclose such information, more so than others. Adams, (2002) indicated that an understanding of the factors which influence disclosure is necessary for improving accountability and specifically:

- The extensiveness of reporting,
- The quality and quantity of reporting by individual companies,
- The completeness or comprehensiveness of reporting (by understanding the reasons for non-disclosure), and
- The disclosure of critical analysis of the (potential) role of legislation in achieving improvements in the abovementioned areas.

Determinants of CSD are different from determinants of corporate financial reporting, in which CSD addresses the social accountability of companies and focuses on a broader audience (stakeholders), than corporate financial reporting, with its primary focus on the information needs of investors and creditors (Smith, et al, 2005:125). Various variables have been examined in several studies as determinants of CSD; Adams, (2002) categorized the determinants of CSD into three categories as in the following table;

Table 3.1: categories of CSD determinants (Adams, 2002)

CATEGORY	VARIABLES
Corporate characteristics	Size-industry membership-corporate age-profit
General contextual factors	The country of origin of company-social and political context-economic context-cultural context-period of time-specific events-media pressure-stakeholder power.
Internal context	Company chair-presence of CSD committee.

Lee & Hutchison, (2005) categorized the forces affecting the decision to disclose environmental information, according to the results of prior studies, into; laws and regulations, firm/industry characteristics, rational cost-benefit analysis, cultural forces and attitudes, and legitimacy, public pressure, and publicity. Sylvie, et al (2003) reviewed literature and indicated that the evidence from studies suggests that voluntary environmental disclosure increases with;

- Corporate size and membership in environment-sensitive industries such as oil and gas, chemicals, forest and paper products or utilities
- The extent to which a company is widely-owned
- A company's exposure to environmental-related legal proceedings or fines related to the environment
- A company's media exposure of its environmental activities

- The probability of being involved in accidents in the future
- Environmental lobby groups' concerns about company's environmental performance.

Previous literature has paid much attention to examining the factors that could explain the differences in CSD among companies, while little attention has been paid to examining the differences in CSD among different countries. To explain the differences of CSD among different companies, previous studies mainly analysed the impact of corporate characteristics on CSD and some studies have focused on studying the impact of media pressure. On the other hand, some studies have provided a particular model to explain the level of CSD, based on stakeholder perspectives. Therefore, the literature of determinants will be organised into general studies (the majority of studies interested in examining some variables as determinants of CSD), special model studies (the studies that present a particular model to explain CSD), and determinants at a country level.

## **2.1 General Studies**

General studies are studies that examine some variables as potential determinants of CSD. These studies have been primarily concerned with the impact of corporate characteristics and to a lesser extent, the impact of media pressure, while less attention has been paid to the impact of the degree of multinational activities and corporate governance mechanisms.

### **2.1.1 Corporate characteristics**

Ahmed & Courtis, (1999) indicated that accounting literature has been interested in the association between corporate characteristics and corporate annual report disclosure since 1961. So, studies that related to CSD particularly interested in examining the impact of corporate characteristics on it.

Cowen, et al, (1987) examined the influence of corporate characteristics on the categories of CSD in annual reports. They used Ernst & Whinney, (1978) survey to categorize CSD into; environment, energy, fair business practices, human resources, community involvement, and products. The corporate characteristics variables in this study are; size, industry, profitability, and presence of social responsibility committee (which introduced as a corporate characteristics for the first time). The results, based on a sample of 134 US companies, showed that company size has a significant impact on disclosure elements; environmental, energy, fair business practice, community involvement, but no influence over human resources or product disclosures. Industry type influenced some types of disclosure-energy and community involvement-, but most disclosure types –fair business practice, human resources, products, other-do not significantly affected by industry type. Human resources information appears to be related to the presence of social responsibility committee.

This study followed the common accounting literature in examining the impact of corporate characteristics on disclosure and it did not presented a theoretical background for determinants. The study is focused on social disclosure in annual reports due to the probability that corporate responsibility reports were not a common practice at the time of study.

Patten, (1991) examined the influence of size, industry and profitability. The results, based on sample of 128 companies, indicated that both size and industry are significant explanatory variables, while profitability was not significantly related.

Hackston & Milne, (1996) using a sample of the largest of 50 companies listed on theNew Zealand stock exchange at the end of 1992, examined three variables as



determinants of CSD; Company size, Corporate profitability and Industry type. The results indicated that both size and industry are significantly associated with amount of disclosure, while profitability is not. In addition, the size-disclosure relationship is much stronger for the high –profile companies industry companies than for the low profile industry companies.

Trotman & Bradely, (1981) examined the effects of four variables; size (measured by total assets), systematic risk, social pressures (measured from Bradley 1978 survey), and management's decision horizon (measured from Bradley 1978 survey). The results indicated that there are positive association between size, social pressure, and emphasis a company places on the long term from one hand and the CSD from another hand, while there is no significant association between the systematic risk of company and the amount of CSD.

Garcia-Ayuso & Larrinaga, (2003) examined factors influencing environmental disclosure based on a sample of Spanish companies. The factors that examined are; size, risk, profitability, environmental sensitivity, and media exposure. The empirical results based on a sample of 112 companies show that concerning amount of disclosure, both media coverage and environmental sensitivity have some explanatory power. Concerning the decision to disclose environmental information in annual reports, it is associated with size, risk, sensitivity analysis, and media coverage.

Hossain, et al, (2006) examine the relationship between social and environmental disclosure and several corporate attributes in a developing country, Bangladesh. The variables used to explain CSD; size, profitability, industry, subsidiaries of multinational company, and audit firm. The results indicated that the variables which were found to be

positively significant in determining disclosure levels are industry and the net profit margin.

Ahmad, et al, (2003) examined factors influencing environmental disclosure in annual reports for Malaysian listed companies. They are focusing on some corporate characteristics; corporate size, financial leverage, profitability, industry membership, auditor type, and effective tax rate. Based on a sample of 299 companies, the empirical results revealed that environmental disclosure is significantly associated with both auditor type and financial leverage.

Ho & Taylor, (2007) examined the influence of corporate characteristics (size, profitability, industry membership, leverage, and liquidity) and country on triple bottom-line reporting (TBL) in annual report, stand-alone report, and special website reports, in both US and Japan. The empirical results, based on sample of 50 of the largest US and Japanese companies, show a positive and significant association between both corporate size and country and TBL disclosure, negative association between corporate profitability, liquidity, and industry membership and TBL reporting, while there is no significant association between leverage and TBL reporting. Despite this study extending the analysis of CSD to other disclosure media over annual reports, it does not present a clear framework for the variables that were examined. In addition to small sample size, the study examined between determinants at the company level and at the country level.

Monteiro & Aibar-Guzman, (2009) examined determinants of environmental disclosure in the annual reports for large Portuguese companies. The factors that they examined are; firm size, industry membership, profitability, quotation on the stock market, foreign ownership, and environmental certification. The empirical results, based on a sample of

109 companies, show that firm size and the fact that a company is listed on the stock market are positively associated with environmental disclosure. In addition to concentration on environmental disclosure in annual reports, this study did not provide a theoretical background for selected determinants.

Jinfeng & Huifeng, (2009) examined the factors influencing level of environmental protection information disclosure in annual reports. They examined some corporate characteristics; corporate size, profitability, industrial nature, financial leverage, and type of accounting firm. The empirical results, based on a sample of 248 Chinese companies, show that corporate size, industry nature, and type of accounting firm are significantly associated with environmental disclosure in annual reports. Garcia-Sanchez, (2008) showed that both corporate size and industry membership are associated with CSD, while there is no association between profitability and CSD, based on a sample of 35 companies.

There are also some studies which interested in influence of corporate characteristics, with other variables, on CSD. Brammer & Pavelin, (2004) based on sample of 134 of the largest UK companies, examined the relation between disclosure and corporate characteristics (size and industry) and they found that disclosure strategy is influenced by industry type and it is positively related to corporate size. Also, Gao, et al, (2005) examined the influence of corporate size and industry on CSD in Hong Kong companies, and they found that size and industry influence the level of CSD.

Branco & Rodrigues, (2008) examined the factors influencing CSD in both annual reports and web sites for Portuguese listed companies. They argued that, based on both legitimacy theory and a resource-based perspective, CSD used by companies as a

legitimacy tool to improve corporate image. They examined the following factors; degree of international activity, company size, industry, consumer proximity (a company's proximity to final consumer), environmental sensitivity, and media pressure. The empirical results, based on a sample of 49 companies, show that only company size and media pressure are significantly associated with CSD, while other variables are not associated. Although this study used a clear theoretical framework, it did not provide a clear link between factors selected as determinants of CSD and this theoretical framework. Also, this study added to literature by examining CSD in both annual reports and internet disclosure, but it suffered from a small sample size.

Previous studies focused on corporate characteristics as determinants of CSD, and the variables that have been used to represent company characteristics are corporate size, profitability and industry type. The following points can be noted:

- (a) Corporate size is a prevalent variable that has been examined as a determinant of CSD in previous studies. There are various indicators used in previous studies to measure company size (sales, total assets, Market capitalization, Fortune rank, Turnover and interest received and receivable for banks), but there is no theoretical reason for using a particular measure of size (Hackston & Milne, 1996:87). The empirical results seem to provide evidence of a significant impact of corporate size on CSD.
- (b) Profitability is also a common variable which represents the financial condition of the company. The empirical results appear to provide inconclusive evidence about the impact of profitability on CSD. There are some methods used to measure corporate profitability such as ROA, ROE, five year average ROE, and one year lagged ROA.

(c) Regarding industry type, there is almost total agreement among studies on the use of a binary code (high profile and low profile) as a measure of industry type. Roberts, (1992) defines high-profile industries as those industries with high consumer visibility, a high level of political risk, or are characterised by concentrated, intense competition. Commonly perceived high-profile industries are petroleum, chemical, mining and extractive, forest, paper, automobile and airline. Low-profile industries are food, health and personal products, hotel, and appliance and household products (Robert, 1992: 605). The empirical results provide evidence that industry type is positively associated with CSD.

Gray, et al, (2001) presented an analysis to the relationship between CSD and corporate characteristics as the following:

- the relationship between CSD and size has produced somewhat consistent results, as the majority of studies conclude that there is a relation, but Singh & Ahuja, (1983) find no relation, and Cowen, et al, (1987) find the relation only holds for certain areas of disclosure.
- the relationship between CSD and industry membership has produced less than consistent results, Hackston & Milne, (1996) find strong relation, Ness & Mirza, (1991) find that this relation holds specifically for the oil industry, while, some other studies find that specific areas of disclosure are related to industry,
- the relationship between CSD and profit has produced inconsistent results, some studies find no relation, while some other studies find no relation or an inverse relation, and on the other hand some studies find a positive relation (Gray, et al, a, 2001:330-331).

And from the results of their empirical study, Gray, et al, (2001) believe that in the UK, CSD is related to corporate characteristics. The detailed functional models of the relationships between different measures of CSD and the corporate characteristics vary with both variables chosen and the time period selected. So, we are unable to claim that there is any unique and/or stable relationship between any measure of disclosure and any corporate characteristics. And they stated that “whilst we can confidently claim that corporate characteristics are highly indicative of a predisposition to disclose, researchers need to make their claims about the relationship between disclosure and characteristics with more care”.

### **2.1.2 Degree of multinational activities**

In contrast to wide attention that has been paid for corporate characteristics; size, industry membership, and profitability, the degree of multinational activities as one of corporate characteristics did not received adequate attention. Toms, et al, (2007) and Toms, (2008) stated that although a large literature on the determinants of CSD has evolved; there is a little evidence on the relation between international activity and CSD. They argued that the level of CSD in multinational corporations depend on the political and environmental risk in the countries in which they operate rather than the number of foreign countries in which they operate. So, they examined the impact of number of foreign countries, political risk in foreign countries, and environmental risk in foreign countries on CSD in the sample of multinational companies from environmentally sensitive industries. The empirical results show that both political and environmental risks in countries in which the companies operate are associated with CSD, while the number of countries is not associated. The limitations of these studies are the

concentration on some environmentally sensitive industries (oil, gas, and chemicals) when examining social disclosure, the small sample, and the confusion between determinants at the country level and on the company level.

Branco & Rodrigues, (2008) examined the impact of multinationality, with some other corporate characteristics variables, measured by the ratio of foreign sales, on CSD by Portuguese listed companies through both annual reports and web sites. Empirical results show non-significant association between multinationality and CSD in two media. Stanny & Ely, (2008) examined factors influencing environmental disclosure about effects of climate change, and from the factors that they examined the ratio of foreign sales. The empirical results revealed that foreign sales are significantly associated with disclosure.

It appears that previous studies have used two indicators to measure multinationality: ratio of foreign sales, and number of foreign countries, and they provide inconsistent results concerning the relationship between multinationality and CSD.

### **2.1.3 Media pressure**

Recent disclosure literature emphasises the importance of media exposure in determining corporate disclosure, so some studies have focused on examining the impact of media pressure on CSD. Brown & Deegan, (1998) examined by industry the relationship between print media attention to environmental issues and the extent of corporate annual report environmental disclosure. They used two theories; legitimacy theory and media agenda setting theory, based on the notion that the media can be particularly effective in driving the community's concern about the environmental performance of particular organisation (from media agenda setting theory). Where such concern is raised, organizations will respond by increasing the extent of disclosure of

environmental information within the annual report (from legitimacy theory). Nine industries were reviewed, Annual report environmental disclosure and print media data are collected for five individual years between the periods 1981 to 1994. The results indicated that for all industries, the extent of corporate disclosure and the newspapers articles in 1993/1994(the latest data year) was greater than it was in 1981/1982 (the earliest data year).in six of the nine industries examined, there was a significant correlation between the level of media attention and the quantity of corporate environmental disclosure.

Adler & Milne, (1997) examined the influence of media pressure, with size and industry, on CSD in New Zealand corporations. Media pressure was measured by perusing the National Business Review, the Herald and INNZ (Index New Zealand). All news stories on any of the 122 companies were collected and each news was categorized according to CSD theme (environment, energy, community, product/customers, employee, and general). The results indicated that for large companies there is a relationship between media pressure and CSD, while there is no relation for small companies. They suggest that because the large companies receive most attention from media. Also, for the high-profile companies, strong and significant correlations were found between CSD and media pressure. For low-profile companies, significant correlations were only observed between media pressure and disclosure about employees.

Patten, (2002 a) argued that the availability of firm-specific release information, even though not widely publicized in the national print media, led to substantially increased public policy pressure for companies with worse environmental performance. The companies would attempt to offset negative impacts of the pollution information by



increasing environmental disclosure. While the change in disclosure appear to be affected by media pressure for some of the sample companies, the TRI (toxic release inventory) impact remained significant when this media pressure was controlled for. Therefore, the study suggested that substantial media pressure is not necessary to induce public policy pressure related changes in environmental disclosure

Deegan, et al, (2002) in their longitudinal study, concentrated on social and environmental disclosure of BHP Company from 1983 to 1997. They examined the relation between disclosure and community concerns for particular social and environmental issue as measured by the extent of media attention. They used content analysis to measure media attention by the number of relevant articles in the print media mentioning BHP for the period from 1983 to 1997. The empirical results support the proposes that management would release positive information in response to unfavourable media attention. Cormier & Magnan, (2003) examined the influence of media pressure (within their cost-benefit framework) on environmental reporting for French companies using the number of environmental news stories reported in ABI/inform for a particular firm in a given year as a measure for media pressure. And they found a relation between media pressure and environmental reporting strategy.

Deegan, et al, (2000) examined the change in annual report disclosure by Australian companies following five different environmental disasters;

- The 1984 union carbide chemical leak in Bhopal, India
- The 1989 Exxon Valdez oil spill off Alaska
- The 1991 Kirki oil spill off the west coast of Australia
- The 1994 Moura mine explosion in Queensland, Australia

- The 1995 oil spill off the north coast of Tasmania resulting from the Iron Baron running aground.

They indicated that four of five disasters received media coverage while one, the Kirki oil spill off the west coast of Australia, did not. The results revealed that there is higher disclosure in the periods after disaster relative to the periods before the disasters for each the events except for the kirki oil spill. They suggested that the lack of reaction to the kirki oil spill may be due to the lack of media attention.

Some other studies examined the impact of media pressure with other variables. Brammer & Pavelin, (2004) examined the media pressure using data derived from the Factiva database, and they found a positive relation. Brammer & Pavelin, (2006) examined the influence of media pressure (with some other variables) on both the decision to make voluntary environmental disclosure and the quality of this disclosure. They used data from Factiva database and they found no significant relation between media pressure and both decision to make disclosure and quality of disclosure. In addition, Li, et al, (1997) indicated that companies with higher environmental media pressure, defined as the proportion of news articles about the company that were environmentally-related, were more likely to make more disclosure about the incidents than companies with lower media pressure. Bewley & Li, (2000) found that the number of environmental related news articles published about a company was positively related to the level of environmental disclosure.

It would seem that previous studies consistently used the number of news items in printed media as an indicator of media pressure, and this provided inconsistent results concerning the relationship between media pressure and CSD.

#### **2.1.4 Corporate governance**

Halme & Huse, (1997) examined the relation between environmental disclosure and corporate governance variables (ownership concentration and board size), industry, and country variables in four European countries (Finland, Norway, Spain, and Sweden). The empirical results, based on a sample of 140 companies in four countries, show that no association between both ownership concentration and the number of board members with environmental disclosure, while industry appear to be the most important factor in explaining environmental disclosure.

Haniffa & Cooke, (2005) examined the impact of culture and corporate governance mechanisms on social reporting in Malaysian companies. The culture value that is examined is the ethnic background of directors and shareholders. The governance mechanisms that are examined are proportion of non-executive directors on the board, multiple directorships for chairman, and proportion of foreign shareholders. The results based on a sample of 139 non-financial companies show CSD is significantly associated with culture, multiple directorship, and foreign ownership. Non-executive directors are negatively associated with CSD.

Ghazali, (2007) indicated that no studies have been done on the association between corporate ownership structure and CSD, so his study examined the influence of ownership structure on CSD. The factors that examined are: ownership concentration; director ownership; government ownership; company size; profitability, and industry. The empirical findings, based on sample of 86 Malaysian companies, indicated that two ownership variables, director ownership and government ownership, are significantly influence of CSD in annual report, while, third ownership variable, ownership

concentration, is not statistically significant in explaining the level of CSD. Profitability is not a significant factor in explaining CSD, while industry was also significant factor influencing CSD.

In addition, some studies examined certain variables of corporate governance with other variables. Naser, et al, (2006) examined factors influencing CSD in developing country. The variables that examined are corporate growth, market capitalisation, profitability, leverage, and ownership variables (governmental ownership, institutional ownership, and major shareholders). The results based on a sample of 21 Qatari companies show positive association between extent of CSD and corporate size, leverage, and corporate growth. Ownership variables are not associated with CSD. Brammer & Pavelin, (2006) examined the influence of corporate ownership and board composition (with some other variables) on environmental disclosure. They distinguish between the decision to make a voluntary environmental disclosure and decisions concerning the quality of such disclosure. Brammer & Pavelin, (2008) examined the impact of same factors on the quality of environmental disclosure. Prado- Lorenzo, et al, (2009 a) examined the impact of a number of independent directors on CSD in Spanish companies, and their results indicated no relation between two variables.

### **2.1.5 Other studies**

Cormier & Magnan, (1999) using a cost-benefit framework<sup>6</sup>, examined the determinants of corporate environmental reporting by Canadian companies (33 companies) subject to water pollution compliance regulations during the 1986-1993 periods. The variables suggested as determinants of environmental disclosure are;

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<sup>6</sup> According to this approach, corporate environmental disclosure can be viewed as an outcome of management's assessment of the costs and benefits to be derived from additional disclosure (Li,et al,1997:460).

- Information costs which are proxied by five variables: Volatility or perceived firm risk, Reliance on capital markets, Trading volume, Control by a single shareholder, individual or family, and Subsidiary of another company.
- Financial condition which are proxied by three variables; Accounting-based performance, Stock market performance, and Leverage.
- Environmental performance which proxied by excess pollution, fines and penalties, orders to conform, and legal actions.

The result indicated that among information cost variables, there is evidence that a company's risk, reliance on capital markets, and trading volume are positively related to the extent of its environmental disclosure, while concentrated ownership (closely-held) is associated with less environmental disclosure. There is evidence that a company in good financial condition chooses to disclose more than company in poor financial condition where financial condition is proxied as an accounting-based rate of return on assets or leverage. There is evidence that company's environmental performance, especially excess pollution, positively influences its environmental disclosure.

In 2003, Cormier & Magnan, (2003) extended their work by assessing how French companies proprietary costs and media pressure affects its disclosure. They argued that environmental reporting strategy is determined by:

- Benefits from a reduction in information asymmetry.
- Costs resulting from disclosure of proprietary information (proprietary costs).
- Environmental media visibility.

Their empirical work (based on a sample comprising 246 firm year observations) examined the influence of variables; information costs, proprietary costs and media

visibility. Their results indicated that economically derived variables such as information costs and proprietary costs are significant determinants of corporate environmental reporting. Also, it is appear that environmental reporting related to corporate media visibility.

Cormier, et al, (2005) suggest a multi-tiered theoretical framework consider the company's decision to provide environmental information as reflecting its responsiveness to different levels of influence:

- Financial stakeholder' information needs
- Society's environmental concerns which translate into public pressures
- Institutional constraints and processes which could be either company – or country-specific.

In their empirical study (based on 337 firm-year observations of Germany companies) they examine the influence of the following variables; information costs; financial condition; and media pressure. The results show that information costs are potentially important determinants of environmental disclosure strategy. Also, environmental disclosure quality is related to media pressure, while there is no relation between financial condition and environmental disclosure. In addition, the results are consistent with institutional theory which there is evidence that imitation and routine determine environmental disclosure.

Brammer & Pavelin, (2006) examines the influence of some variables on environmental disclosure. They distinguishes between the decision to make a voluntary environmental disclosure and decision concerning the quality of such disclosure, and examined how each type of decision is determined by company and industry characteristics. The

variables which were examined are; the nature of business activities (industry type), the corporate environmental performance, corporate size, media pressure, company ownership, company resources (profitability and leverage), and board composition. The results (based on a data could be obtained from 447 companies) were divided to:

1. The decision of disclosure;

The results showed statistically significant systematic variation across sectors in the propensity to make environmental disclosures. Size have a highly significant positive effect, highly leveraged companies are significantly less likely to make disclosure, no significant relationship between current profitability and disclosure. There is significant and negative relationship between the size of the largest shareholding in company and disclosure, no significant relation between disclosure and the variables of environmental performance, media pressure, and number of non-executive directors.

2. The quality of disclosure;

Both industry type and size has a positive relationship. Both leverage and size of the largest shareholdings have a significant negative effect, no significant role for media pressure, profitability, and the number of non-executive directors.

This study has some advantages compared with other studies; using a large sample, examining various variables, and taking into account the quality of disclosure. At the same time, this study has some limitations; it has concentrated on environmental disclosure in annual reports, and it did not measure the quantity of disclosure. In addition, it does not present the theoretical background for variables used, and in particular governance variables.

Brammer & Pavelin, (2008) examined factors influencing the quality of environmental disclosure. To measure quality of environmental disclosure, the study used the PIRC environmental reporting 2000 survey. The PIRC analyzes the content of corporate annual reports and other statements of environmental policy or performance, and uses five indicators of quality of corporate environmental disclosure; disclosure of an environmental policy, the description of environmental initiatives, reporting on environmental improvements, setting of environmental targets, and the presence of an environmental audit. The factors that they are examined as determinants of quality of environmental disclosure are; type of activities, environmental performance, corporate size, media pressure, corporate ownership, profitability and leverage, and number of non-executive directors on the board. The empirical results, based on a sample of 447 companies, show that both corporate size and type of activities is significantly associated with the quality of corporate environmental disclosure. Despite this study being characterized by the large size of the sample, and evaluation of environmental disclosure in annual reports and other statements, it is limited by its concentration on the quality of environmental disclosure and it does not present a theoretical background for selected determinants.

Michelon, (2007) examined the relationship between corporate reputation and CSD. He argued that corporate reputation can be considered either determinant or result of CSD. He used the participation in the Dow Jones Sustainability Index (DJSI) as indicator for corporate reputation, which corporate reputation measured as a dummy variable equal 1 if the company belonged to the DJSI and 0 otherwise. The results stated that companies



with a strong reputation provide a significantly higher amount of CSD to their stakeholders.

Yusoff & Lehman, (2005) examines the differences in the factors influencing environmental disclosure decision between Malaysian and Australian companies. The factors which are examined are; the environmental sensitivity of an industry, the corporation financial performance, and environmental certification (ISO 14000) which means whether companies accredited ISO 14001 or non-accredited ISO 14001. The study explores whether ISO 14000 certification is a better signal for accounting system to encounter environmental matters or not. The results, based on the sample include corporate annual reports of the top 50 Malaysian and Australian public listed companies, show that ; inconsistent with previous studies, environmental sensitivity does not relate to environmental disclosure for both Malaysian and Australian companies, while financial performance seem to be not related for Malaysian companies but related for Australian companies, the environmental certification (ISO 14000) is a significant determinant of environmental disclosure for both Malaysian and Australian companies.

Liu, & Anbumozhi, (2008) examined the factors affecting the disclosure level of corporate environmental information in Chinese listed companies on the bases of stakeholder theory. The empirical results based on sample of 175 companies showed that government power (the environmental sensitivity of industry) is positively related with the level of environmental disclosure, while shareholder power (percent of floating stock possessed by the top 10 shareholders) and creditor power (debt/asset) are not associated with the level of disclosure.

Parsa & Kouhy, (2008) noted that the literature was extremely focused on the disclosure of social information by large companies, so they examined the determinants of the disclosure of social information by small-and medium-sized companies in UK. Based on a sample of 100 UK companies, they used a correlation test to examine the relation between CSD and some variables. The empirical results show that the corporate age is not associated with CSD, while industrial background, corporate size, and gearing, are associated with it. These results imply that small-and medium-sized companies are similar to large companies in the impact of both corporate size and industry membership on CSD.

Reverte, (2009) examined the determinants of CSD by Spanish listed companies. The study examined the impact of some variables that related to legitimacy theory on CSD. Based on a sample of 46 companies, the empirical results indicated that corporate size, industry membership, and media pressure are significantly associated with CSD, while both profitability and leverage are not associated with it. The study implied that legitimacy theory is the most relevant theory to explain the CSD practices of Spanish companies.

Prado- Lorenzo, et al, (2009 a) test a stakeholder theory approach to analyzing CSD, and examined shareholder power and ownership dispersion on CSD. The variables which have been examined are; the presence of financial institution in the corporate ownership structure, the presence of a physical person that represents a dominant shareholder and a number of independent directors. The empirical results, based on a sample of 99 Spanish companies, reveal only a limited association between the presence of a physical person that represents a dominant shareholder and CSD.

Clarkson, et al, (2008) examined the association between level of environmental disclosure (in corporate responsibility reports) and environmental performance from point of view two competing theories concerning predictions about the level of voluntary environmental disclosure. The economic disclosure theory predicts positive association between environmental performance and environmental disclosure based on a notion that companies with good environmental performance will be willing to convey their type, while companies with bad environmental performance will choose to be silent on their environmental performance. Socio-political theories (legitimacy and stakeholders) predict a negative association between environmental performance and environmental disclosure. The empirical results, based on a sample of 191 companies, show a positive association between environmental performance and environmental disclosure.

Choi, (1999) examined factors influencing environmental disclosure in semi-annual reports for Korean companies. The factors that they examined are; corporate size, corporate financial performance, stakeholders power (owners, creditors, government, and auditors), and corporate age. They conducted two-stage analysis; examined discloser and non-discloser companies, and then they examined the level of environmental disclosure for discloser companies. The empirical results, based on a sample of 64 companies, show that concerning disclosure decision, both corporate size and auditor' influence are significantly associate with the decision. Concerning the level of disclosure for discloser companies, financial leverage and corporate age are significantly associated with the level of disclosure.

Stanny & Ely, (2008) examined factors influencing environmental disclosure about effects of climate change. Institutional investors are asking companies to disclose

information about climate change through the Carbon Disclosure Project. They argued that companies that receive more scrutiny will increase their disclosure. The factors that they examined are; corporate size, previous disclosure, industry, foreign sales, asset age, capital expenditure, Tobin's Q, leverage, profitability, and institutional ownership. The empirical results, based on a sample of S&P 500 companies, revealed that corporate size, previous disclosure, and foreign sales are significantly associated with disclosure. While there is no significant association between disclosure and institutional ownership, Tobin's Q, profitability, leverage, industry, and asset age.

Interesting in the same issue, climate change, Prado-Lorenzo, (2009 b) examined factors that influence the disclosure of information on issues related to greenhouse gas emissions and climate change in different countries (USA, Australia, Canada, and the European Union). The factors that examined are corporate size, leverage, industry, return on equity, return on assets, market to book value, whether company has its headquarters in a country which approved the Kyoto protocol, and whether company belongs to Dow Jones sustainability index. The results show that corporate size, market to book ratio, and Kyoto protocol are significantly associated with disclosure. Return on equity is negatively associated with disclosure, while leverage, return on assets and sustainability index is not associated with disclosure.

Haddock, (2005) examined the impact of location on value chain on environmental reporting in the UK food sector. He found that companies that are proximate to final consumer, particularly those with a brand name, had more disclosure than business-to-business companies. Then, Haddock & Fraser, (2008) extended this study by examining the impact of location on value chain on environmental reporting for FTSE 250

companies. They found that companies that are close to market, or are brand-name companies have more disclosure than business-to-business companies.

In addition to previous studies, Tagesson, et al, (2009) examined the factors influencing social and environmental disclosures on corporate websites in Swedish companies. The results show that disclosure is associated with corporate size (number of employees), industry, profitability, and ownership identity. Wanderley, et al, (2008) examined the impact of both country of origin and industry sector on CSR information on corporate websites in emerging countries. They analysed the websites of 127 companies in 8 countries (Brazil, Chile, China, India, Indonesia, Mexico, Thailand and South Africa), and found evidence that both country and industry sector have a significant influence over CSD in websites, and country of origin has stronger influence than industry sector. Cho, et al, (2006) examined the relation between corporations' spending on political activities and environmental disclosure. Based on a sample of 119 US environmentally sensitive companies, the correlation results showed that there is a significant association between political expenditures and environmental disclosure. Rizk, et al, (2008) indicated that environmental disclosure is associated with industry membership while it is not associated with type of ownership (private and government owned companies) in developing country Egypt. Domench & Dallo, (2001)<sup>7</sup> examined certain factors that influence environmental disclosure in annual reports. Based on a sample of 56 Spanish companies, the results show that company size and industry membership are associated with environmental disclosure, while there is no significant association between financial development and environmental disclosure.

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<sup>7</sup> This paper in Spanish with English abstract

Hossain & Reaz, (2007) examined determinants of voluntary disclosure in annual reports for Indian banking companies. Social disclosure represented one category of voluntary disclosure categories. The empirical results, based on a sample of 38 banking companies, show that corporate size and assets in-place are significantly associated with disclosure, while corporate age, multiple exchange listing, business complexity, and board composition (percentage of non-executive directors) are not associated with disclosure. Mitchell & Hill, (2009) suggested that implementation of internal environmental policy facilitate increased corporate social and environmental reporting in South African companies. Karim, et al, (2006) revealed a negative association between both foreign concentration and earnings volatility and environmental disclosure in the footnotes of annual reports and 10-K report.

Mio, (2009) addresses another issue; he examined factors influencing the quality of sustainability, environmental and social reports of Italian companies. He presents an analysis for the link between the quality of reports and the following variables: level of clarification of the sustainability strategy; level of complexity; territoriality (extension of the market); degree of maturity and experience in sustainability communication; rate of growth (turnover and number of employees); degree of privatization and organizational structure and arrangements of the issues of social responsibility.

The approach to measure quality of reports is based on comparing the degree of application of principles expressed by the GRI-G3 guidelines. The assessment of application is based on a scale of 0-5 (0 for non-applied principles, 5 for fully respected principles). The analysis shows that variables influencing the quality of reports are the complexity, the territorial, and number of employees, and to limited extent the level of

privatization. There are no correlation between the quality of reports and turnover and organizational structure.

Away from the dominant methodology used in literature (using correlation or regression analysis), Adams, (2002) indicated to the lack of explanation for internal contextual factors and their impact on reporting, so, these factors were examined by using interviews with three UK companies and four German companies. All companies were in the chemical and/or pharmaceutical business. The findings showed that there are significant internal contextual variables which are likely to impact on the extensiveness, quality, quantity and completeness of reporting. These variables include aspects of the reporting process and attitudes to reporting, its impacts, legislation and audit. The study indicated that the process of reporting and decision making appears to depend on country of origin, corporate size and corporate culture. Aspects of process which appear to be influenced by these variables are the degree of formality versus informality, departments involved and the extent of engagement of stakeholders. The findings pointed that accountants are neither involved in data collection nor considered appropriate people to be involved. The attitudes of interviewees are also likely to have an influence on the extent nature of reporting.

Using the same methodology, interviews, Ljungdahl, (2004) conducted 20 interviews with representatives of 8 Swedish companies mainly in the forest products sector. The aim of the interviews was to identify which influenced CSR reporting. The interviews' results show the factors identified during interviews can be divided to factors which are primarily of an external nature (public opinion, customer demands, stakeholder interest, peer pressure) and factors which are of an internal nature (management support,

environmental department, environmental management system, corporate culture, reporting experience, competitive advantage) as the following;

- Public opinion and customer demands; all interviewees agree that the product market demands and public opinion consider pressures on companies to act in an socially acceptable manner more than legal requirements.
- Stakeholder interest and peer pressure; several interviewees indicated that, directly or indirectly, the reporting activities of competitors as a factor affected their company's disclosure.
- Management support and centralised environmental department; consider internal factors that have influence on the disclosure.
- Prior reporting experience, corporate culture and competitive advantage; the positive reporting experience consider important motive for developing CSR reporting.

## **2.2 Special Models**

In addition to previous studies, there are some studies which suggested a proposed framework (based on stakeholder perspective) that can explain which company disclose more corporate social responsibility information.

To explain the disclosure decision, Ullmann, (1985) argued that strategic posture articulates with two other factors (financial performance, and stakeholder power) and he suggest a contingency framework to explain disclosure strategy depending on these three variables as the following table;



Table 3.2: Ullman' model for disclosure strategy

Situation	Stakeholder power	Strategic posture	Financial performance	Disclosure strategy
1	High	Active	Good	Mandatory and voluntary: high
2	High	Active	Poor	Mandatory-high voluntary-low
3	High	Passive	Good	Mandatory-indeterminate voluntary-low
4	High	Passive	Poor	Mandatory-indeterminate voluntary-low
5	Low	Active	Good	Mandatory-high voluntary-low
6	Low	Active	Poor	Mandatory and voluntary: low
7	Low	Passive	Good	Mandatory and voluntary: low
8	Low	Passive	Poor	Mandatory and voluntary: low

Source: (Ullman, 1985:553)

Robert, (1992) tested empirically the ability of stakeholder theory to explain CSD and his results support the Ullman's framework. Eljido-Ten, (2004) used Ullman's model to examine the determinants of environmental disclosures in developing country Malaysia. He examined stakeholder power (shareholder power, creditor power, and government power), strategic posture (the presence of environmental committee and ISO certification); and economic performance (return on assets and change in firm value). The findings show that environmental disclosure is associated with strategic posture and the government's power to sanction companies. Economic performance is not associated with environmental disclosure. And recently, Magness (2006) examined this framework and suggests another one to Discretionary disclosure depending on two variables (strategic posture and financial performance) as the following;

Table 3.3: Magness' model for disclosure strategy

Strategic posture	Financial performance	Discretionary disclosure expected to be
High	Good	High
High	Poor	Low
Low	Good	Low
Low	Poor	low

Source: (Magness, 2006:555)

In the same context, stakeholder perspective, Aerts, et al, (2004) suggested that based on an analysis of a typical company's relationships, stakeholders can be divided into three groups: business stakeholder; social stakeholders and financial stakeholders. They examined the influence of business stakeholders' implicit claims (time horizon and industry concentration ratio), social stakeholders' implicit claims (media exposure and capital intensity), and financial stakeholders' implicit claims (forecast dispersion, concentrated ownership, return on assets, and leverage) on environmental disclosure in north American countries, USA and Canada, and continental European countries, Belgium, France, Germany, and Netherlands. The results show that business stakeholders concerns can explain to a significant extent the corporate environmental disclosure in North America. Also, media exposure through either positive or negative news stories published in newspapers or magazines is positively related to environmental disclosure. On the other hand, Belkaoui & Kaprik, (1989) suggested a positive model of the corporate decision to disclose social information in terms of both social performance and economic performance.

### 2.3 Determinants on The Country Level

The majority of prior studies have concentrated on analysis data from one country, and there are some studies which presented a comparative analysis between some countries (see the following table).

Table 3.4: some of CSD comparatives studies

Study	countries	comments
Roberts,1991,	Germany, Netherlands, France, Sweden and Switzerland.	Concentrated on environmental disclosure, and indicated that while the majority of the companies disclose at least some environmental information, the level of disclosure is generally low.
Gamble,et al,1996	Australia-belgium-canada-denmark-finland-france-germany-india-italy-japan-luxemburg-New Zealand - Netherlands -Norway -China - South Africa -Sweden - Switzerland- UK - USA	The British American accounting model produced the highest percentage of companies employing the different environmental disclosure forms
Fekrat,et al,1996	Austria-belgium-canada-chile-denmark-finland-france-germany-italy-japan-netherlands-new Zealand-Norway - Spain -Sweden - Switzerland-UK-USA	No apparent relation between disclosure and environmental performance
Adams,et al,1998	France - Germany - Netherlands - Sweden - Switzerland -UK	Whilst legitimacy theory can be employed to explain differences related to size and industry, the differences between countries are much more complex
Williams & Pei, 1999	Australia- Singapore - Malaysia - Hong Kong	Companies in all countries appear to provide more disclosure on web sites than annual reports
Williams,1999	Australia-Singapore- Hong Kong - Philippines - Thailand - Indonesia -Malaysia	The socio-political and economic system of a nation interact to shape the perceptions of companies in the need to release CSD that meet social expectations as well as government regulation
Adams & Kuasirikun, 2000	UK-Germany	The factors which have caused differences between two countries are industry initiatives, extent of regulation, and other social and political pressure
Buhr & Freedman, 2001	Canada-USA	Concentrated on environmental disclosure and show that over the time period the disclosure produced by Canadian companies increased more than the US disclosure which was initially greater.
Newson & Deegan, 2002	Australia-Singapore-south Korea	There is weak association between global expectations and social disclosure policies of large multinational companies
Holland&Foo,2003	UK-USA	
Smith, et al,2005	Denmark-Norway-USA	
Aerts, et al,2008	Belgium, France ,Germany, Netherlands, Canada, and USA	The results show that north American companies provide more environmental disclosure related to expenditures and risk, abatement, and remediation than continental Europe companies.
Chambers, et al, 2003.	India, south Korea, Thailand, Singapore, Malaysia, Philippines, and Indonesia	They indicated that CSD in Asia lag behind those in the west

Some studies have examined the determinants that explain the differences between countries in the level of CSD applications. Williams, (1999) used political economy theory to explain the determinants of CSD on the countries level. He suggest that culture dimensions (uncertainty avoidance and masculinity), political and civil system, legal system, level of economic development, and equity market are the variables which represent the determinants of CSD on the country level. The results of empirical tests (based on the sample of listed companies in seven countries) show that two cultural dimensions and political and civil system are significant determinants of quantity of CSD provided by listed companies in these countries, While, the legal system and equity market do not appear to be important factors in explaining CSD.

Chambers, et al, (2003) investigated corporate social responsibility disclosure on the internet through analysis of websites of the top 50 companies in seven Asian countries. They attempted to explain the different levels of disclosure among seven countries by analysing the impact of economic level, social development, system of governance, and globalisation on the level of disclosure. They examined the economic level by two variables; economic performance (GDP per capita), economic structure (the balance of economic sectors), and they indicated that there is no relationship between economic level and disclosure. They measured social development by two proxies; life expectancy and adult literacy, and found that there is no statistically significant relationship with disclosure. They expected that high standards of governance would be positively correlated with disclosure, and they measured governance by using published data on perceptions of corruption, bribery and opacity at the national level, they find no clear relationship with disclosure. The study investigated the impact of globalisation through

three variables; level of direct foreign investment, international export patterns, and the domestic/international status of companies. In general, they report a positive association between globalisation and disclosure.

Van Der Laan Smith, et al, (2005) argued that stakeholder orientation in a country will influence the extent and quality of CSD in annual reports. They argued that corporate governance systems, ownership structure, and cultural factors in a country influence the manner in which the role of company and its stakeholders is defined in a society. The results based on a sample of 32 Norwegian/Danish companies and 26 US companies support their argument.

Buhr & Freedman, (2001) explains that the factors such as history, geography, the political system, the legal system, and the business climate affect the different disclosure responses in Canada and USA. Adams & Kuasirikun, (2000) explored some of the factors which might be thought have caused the diversity in reporting between German and UK including; industry initiatives, extent of regulation demanding ethical responsibility, and other social and political pressures.

## **2.4 Limitations of Prior Studies**

The current study is considered a general study, as it examines a framework of some variables that could explain the level of CSD. Haron, et al, 2004, argued that it should be noted that past research on CSD lacks a consistent approach in terms of (a) research method, (b) sample selection, or (c) the period of study. The studies related to determinants of CSD suffer from some limitations that contribute to the inconclusiveness of existing studies;

- The samples in earlier studies have tended to be small and restricted in diversity in both size and industry.
- They lack theory and have inappropriate definitions of key terms.
- They use binary variables extensively to indicate whether an industry has a high or low profile, regarding social or environmental issues (Ullman, 1985; Patten, 2002b:765; Brammer & Pavelin, 2006:1170).

The current study attempts to overcome these general limitations through using a large sample, which includes various economic sectors, in order to achieve industry diversity in the sample. This study also depends on presenting a theoretical framework for determinants.

In addition to other general limitations, previous studies appear to suffer from some further limitations, the first of which is ignoring stand-alone corporate responsibility reports. Although annual reports are considered as the most important disclosure documents, because they are produced regularly, are required by legislation and produced by all major companies, the growing trend toward CSD has been matched by increasing interest in releasing separate CSR reports<sup>10</sup>. Despite a growing trend toward producing stand-alone reports, the previous studies did not pay attention to these reports. It is important that attention be given to these reports to explain the level of social disclosure for the company as a whole, over and above the level of social disclosure in annual reports. Roberts (1991) stated that the exclusive focus on annual reports may provide an incomplete picture (to some extent) of corporate disclosure practices (Roberts, 1991:61).

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<sup>10</sup> According to KPMG's triennial surveys (initiated in 1993) CSR reports have been steadily rising since 1993 and have increased substantially in the past three years. In 2005, 52% of G250 (global 250 companies) and 33% of N100 (national 100 companies in 16 countries) companies issued separate CR reports, compared with 45% and 28% respectively in 2002 and 35% and 24% respectively in 1999, (KPMG, 2002, 2005).

Zeghal & Ahmed (1990) also indicated that annual reports are not the only medium that companies can use to disclose their socially responsible behaviour. Unerman (2000) stated that “studies which only examine annual reports risk underestimating the volume of CSR companies engage in” (Unerman, 2000:674). On the other hand, the presence of stand-alone reports could affect social disclosure in annual reports, and ignoring stand-alone reports may lead to misleading results. It is possible that companies that produce corporate responsibility reports could decrease the quantity of social and environmental information in their annual reports based on the presence of this information in their stand-alone reports. By contrast, these companies could increase this information in their annual reports, based on the fact that the information already exists in responsibility reports and consequently there is no additional cost in disclosing this information in annual reports. In this context, Danastas & Gadenne, (2006) stated that “the production of separate environmental reports by large corporations and the utilisation of company websites to disclose environmental information consequently diminishes the amount of corporate social disclosure included in the company’s annual report”(Danastas & Gadenne, 2006:87). Briefly, concentration on CSD in annual reports provides an incomplete picture of CSD and could provide misleading results.

Another limitation of previous studies is that the majority of these studies have concentrated on measuring the quantity of CSD; few studies have taken into account the quality of CSD. The quality of CSD does not necessarily or directly link to the amount of disclosure (Brammer & Pavelin, 2006: 1169-1170). Van Staden & Hooks, (2007) argued that evaluating the quality and extent of environmental disclosure in different media will give a comprehensive picture of companies’ attempts to discuss environmental activities

(Van Staden & Hooks, 2007: 198). There has been recognition that reliance on mere numbers of disclosures may be misleading (Cowen, et al, 1987: 121). Counting the number of sentences or words does not provide an understanding of the type and importance of information being disclosed (Smith, et al, 2005: 140). There is a view that environmental disclosure quality affects a company's immediate stakeholders and society, more than the disclosure quantity (Cormier, et al, 2005:5). It can be argued that disclosure quality reflects whether the company provides information about actual activities or just provides a quantity of general information. Ignoring quality of disclosure could provide misleading results, as it does not differentiate between companies that provide real information and those that provide only general information. Thus, ignoring disclosure quality leads to misunderstanding regarding the level of CSD and adds to an incomplete picture of CSD. Although the measuring of disclosure quality is difficult, and may lack objectivity, it is important to evaluate CSD taking into account both quantity and quality of disclosure.

Most studies have concentrated on analysing environmental disclosure. These studies seem to be motivated by growing global concerns concerning environmental issues and increasing attention from the public with regard to the impact on the environment of companies' activities. In this aspect, some studies indicated that environmental information is not the prevalent social disclosure category in annual reports; Hackston & Milne (1996), indicated that human resources and community information are the most important categories in New Zealand companies. Rizk et al. (2008) indicated that employee-related information is the most important information in Egyptian companies. Furthermore, Sobhani et al. (2009) indicated that human resources information is the most



important information in Bangladesh. Therefore, concentration on environmental disclosure fails in its reflection of corporate social responsibility strategies. Concentration on environmental disclosure has also led to concentration on particular economic sectors, which in most cases seem to be environmentally sensitive sectors. These environmentally sensitive sectors are attributed to the industry sector and consequently other economic sectors are ignored. This idea is based on the notion that some economic sectors, in particular financial and services sectors have no impact on the environment. This concentration on some economic sectors could lead to misleading results. For example, previous literature indicates positive relationships between corporate size and CSD, but this relationship could be disputed if all economic sectors are not taken into account.

Despite widespread academic and business interest in CSD, the theoretical framework of the underlying determinants of CSD is still elusive (Cormier, et al., 2005: 6), and each study has concentrated on examining some variables as determinants of CSD. Previous literature on determinants of CSD has been primarily concerned with the impact of corporate characteristics, following mainstream disclosure literature, and some studies have examined the impact of media pressure on CSD. By contrast, little attention has been paid to the impact of other variables, such as corporate governance and degree of multinational activities, on CSD. Regarding this concern, Haniffa & Cooke, (2005) argued that since disclosure is an accounting activity involving both human and non-human resources, studies in this area would benefit if both cultural and corporate governance factors are considered (Haniffa & Cooke, 2005: 392). Consideration of corporate governance is important because it is top management that oversees disclosure in annual reports (Gibbins, et al, 1990).

It can therefore be argued that previous studies related to determinants of CSD display two basic limitations. One limitation is related to CSD itself, as these studies, in most cases, have provided an incomplete picture of CSD through concentration on quantity of environmental disclosure in annual reports. The second limitation is related to determinants, as there is no theoretical background to explain the selected variables. In addition to these two basic limitations, the concentration on some economic sectors in analysis could provide misleading results. Briefly, the limitations of previous studies are:

1. Concentration on annual reports and ignoring stand-alone reports.
2. Concentration on quantity of disclosure and ignoring its quality.
3. Concentration on environmental disclosure.
4. Lack of theoretical background to explain determinants.

Several questions come to mind as a result of these limitations. Which factors can represent a framework for CSD determinants (at the companies' level)? Are these factors influencing both the quantity and quality of CSD? Which factors have the greatest impact on the level of CSD?

### **3. CONSEQUENCES OF CSD**

Despite the importance of clarifying the significance of CSD and analysing the benefits that would have been achieved by companies, the consequences of social disclosure have attracted less attention than the determinants of this disclosure. The consequences of CSD can be represented as feedback from society on CSD, and could be seen as an answer to the question: Does this disclosure achieve its objectives? Dierkes & Antal, (1985) suggest a stepwise process for evaluating the usefulness and use of CSD, they suggest investigating;

- How important is the concept of CSR to users?
- How much CSD satisfies users' information needs when making decisions?
- Is CSD considered useable? Is the information perceived to be reliable and is it presented in such a way that it can be used?
- Does CSD actually change decision-making behaviour?

Prior studies have concentrated on two dimensions as consequences of CSD; the impact of CSD on corporate social reputation and the impact of CSD on financial performance (the market reaction to CSD).

### **3.1 Corporate Social Reputation**

One of the most important explanations for CSR disclosure is it could be a part of corporate reputation (to avoid or alleviate social pressure). Fomburn, (1996) defines reputation as strategic asset that produce tangible benefits such as: Premium prices for products; Lower costs for capital and labour'; Improved loyalty from employee; Greater latitude in decision making and Cushion of goodwill when crises hit ( Fomburn, 1996:57). Fomburn & Van Riel, (1997) suggested that reputation is:

- a. Derivative, second-order characteristics which emerge from particular organisational fields, and is
- b. External reflections of internal sense making activities conducted within firms, which
- c. Develop from prior activities and prior assessments by diverse evaluators, and as such
- d. Comprise multiple images/assessments of companies.

Although, legitimacy and reputation are occasionally used interchangeably in social accounting studies (Deegan, 2002:296), Deephouse & Carter, (2005) suggested that legitimacy and reputation differ in two aspects:

- The nature of assessment; while legitimacy relies on meeting and adhering to the expectations of social system's norms, rules and meanings, reputation relates to a comparison of companies to determine their relative standing.
- The dimension of evaluation; reputation may be related to virtually any organisational attribute such as attractive landscaping around facilities, but such features are not usually linked to legitimacy (Deephouse & Carter, 2005:331).

The common way to describe corporate reputation is using reputation ranking studies and various reputation indexes. Stakeholders use environmental ratings to make decisions about investments, consumer purchases, and political activism such as lobbying and boycotting. For example, KLD dropped Coca-Cola Co. from its broad market social index in July 2006 because of concerns over the company's labour and environmental policies in the developing world. This action prompted TIAA-CREF, the biggest US retirement fund, to sell over 50 million shares of Coca-Cola Co. stock. Critics of the company also seized on KLD action as support for their longstanding complaints against Coca-Cola Co. (Chatterji, 2007:5).

Some studies have examined the impact of CSD on corporate reputation; Toms, (2002) analysed the relationship between the environmental disclosure (with diverse institutional share ownership, systematic risk, size and profitability) and corporate environmental reputation. He proposed theoretical framework based on resource-based view of the firm supplemented by quality signalling theory. The environmental reputation determined by using the corporate reputation rankings for the community and environmental responsibility aspect of management today's survey of Britain's most admired companies in 1996 and 1997. The empirical results suggest that environmental disclosure in annual

reports contributes significantly to the creation of environmental reputation. So it is concluded that there is strong support for the relationship between disclosure strategy and environmental reputation. Hasseldine, et al, (2005) extend the work of Toms, 2002, using the theoretical framework integrating the resource based view of the firm with quality-signalling theory, they examine the effects of quantity and quality of environmental disclosure on the corporate environmental reputation. They added research and development expenditure as a variable influence environmental reputation. The results show that environmental disclosure has a strong effect on the creation of environmental reputation. The results show that quality of disclosure has stronger effect on environmental reputation than quantity of disclosure, so it is concluded that content analysis based on the mere volume of disclosures may be insufficient for the purpose of identifying the relationship between disclosure and reputation.

Deegan & Rankin, (1996) found that increased disclosure by companies in years in which they were prosecuted by the Australian environmental protection agency. Aerts & Cormier, (2009) argued that companies use environmental disclosure (in annual reports and press releases) to manage their environmental legitimacy. They examined the impact of environmental disclosure in both annual reports and press releases on environmental legitimacy measured by Janis-Fadner coefficient rely on content analysis of press media coverage for corporate environmental issues. The study differentiated between two types of environmental press releases, proactive and reactive. The empirical results based on a sample of 158 US and Canadian companies, revealed that environmental legitimacy is positively affected by environmental disclosure in annual reports and by reactive environmental press releases.

## 3.2 Economic Consequences<sup>11</sup>

Ullman, (1985) distinguished between social disclosure and social performance and argued that there are three relationships to study; the relation between social disclosure and social performance, the relation between social disclosure and economic performance, and the relation between social performance and economic performance. He argued that social disclosure may not be correlated with social performance and social disclosure cannot be substituted for performance without prior empirical verification. Therefore, the academic literature has been interested to study the relation between the three variables; corporate social performance (CSP), corporate social disclosure (CSD), and corporate financial performance (CFP). In order to better understand of the economic consequences of CSD, first the relation between CSP and CFP will be analysing, and then analysis the studies that related to economic consequences of CSD.

### 3.2.1 Social and financial performance

Although, traditionally, it has been assumed that investors will act in accordance with their economic interests when choosing from among alternatives investments, there are two new factors have been introduced into investment decision-making due to rising public concerns over the social and environmental consequences of corporate activities; new and increasingly stringent sanctions against certain types of corporate activities, an

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<sup>11</sup> Healy & Palepu, 2001, reviews the studies which examined the economic consequences of voluntary disclosure. they argue that there are potentially three types of capital market affects for companies that make extensive voluntary disclosure:

1. Improved stock quality; voluntary disclosure reduce information asymmetries among informed and uniformed investors, therefore, with high levels of voluntary disclosure, investors can be relatively confident that any stock transactions occur at a fair price, increasing liquidity in the company's stock.
2. Reduced cost of capital; when disclosure is imperfect, investors bear risks in forecasting the future payoffs from their investment. If this risk is non—diversifiable, investors will demand an incremental return for information risk. Therefore, with high levels of disclosure, and hence low information risk, are likely to have a lower cost of capital.
3. Increased information intermediation; if management's private information is not fully revealed through required disclosure, voluntary disclosure lowers the cost of information acquisition for analysts and hence increases their supply.

increase in the number of investors who believe they should avoid investing in certain classes of corporations (Spicer, 1978: 95-96). Therefore, attention has been paid to corporate social performance. Wood, (1991) described CSP as being comprised of three major components; first, the level of CSR which is based on legitimacy within society, public responsibility within the organisation, and managerial direction by each individual within the organisation. Second, the processes of corporate social responsiveness and these include environmental assessment, stakeholder management and issues management. Third, the outcomes of corporate behaviour which includes social impacts, social programs and social policies.

There are two viewpoints about the relation between CSR and CFP;

- First one by Friedman, 1970, (agree with simple economic model of a profit maximizing firm) who stated that corporate resources spent on social responsibility-related activities come out of shareholders pocket. According to his claim, CSR cannot be contributing to company value. So, we can expect a negative relation between CSR and CFP.
- Second one believes that it is a myth that activities in social responsibility are in fundamental conflict with the interests of shareholders. There are some mechanisms (deriving from stakeholder theory) that explain why managing the stakeholders interests can increase a company's profit such as;

¶ Managing environmental concerns can lower the costs of complying with existing and future environmental regulations, although it can increase the operating costs in short run.

¶ Managing employee relation; can lower worker turnover and absenteeism, and enhance productivity by improving commitment and efforts. Increased diversity in the workforce means that a company is not constrained by race or gender in selecting the best person for jobs which enabling company to recruit better talent.

¶ Managing good interorganisational relationships with the suppliers can be the source of competitive advantage.

¶ Maintaining a good relationship with community may have a positive effect of attracting desirable residents, besides it can decrease the possibility of a negative media event such as picketing.

¶ Customers can take actions to reward or punish a company's action in an attempt to change or reinforce such actions, thereby creating a positive link between CSP and CFP (Moon, 2007: 5-6).

The relationship between corporate social performance (CSP) and corporate financial performance (CFP) has attracted the attention of many researchers. Pava & Krausz, (1996) conducted an analysis based on 21 empirical studies from 1972 to 1992, and they found that 12 studies pointed to a positive association, 8 studies found no association and one study found a negative association. Griffin & Mahon, (1997) divided previous studies by decade and they found following results (table 3.5);

Table 3.5: studies on relationship between CSP and CFP divided historically (Griffin & Mahon, 1997)

Decade	Positive	No effect/ inconclusive	Negative
1970s	12	4	1
1980s	14	5	16
1990s	7	0	3



Orlitzky, et.al, (2003) conducted a meta-analysis of 52 studies (which evaluated the relationship between CSP and CFP) and they found:

- CSP appears to be more highly correlated with accounting-based measures of CFP than with market-based indicators,
- CSP reputation indices are more highly correlated with CFP than are other indicators of CSP.

Margolis, et al, (2006) provided an analysis to the 99 research studies which have sought to determine whether or not positive social performance leads to positive Financial Performance and they indicated that the studies look at CSP as either dependent (is a product of corporate financial performance), or independent (CSP contributes to CFP) variable. From the 80 studies evaluated whether CSP contributes to CFP; 53% point to positive relationship, 24% found no relationship, 4% find a negative relationship, and 19% yield a mixed results. From 19 studies evaluated whether CSP is an outcome of CFP; 68% point to positive relationship, 16% yield no relationship, and 16% providing mixed results. Dam, (2006) presented an overview of the results of the studies on the relationship between CSR and CFP classified by financial performance measures, he analysed the impact of socially responsible behaviour on three widely used financial indicators; the market-to-book ratio, return on assets and stock market returns. The findings in the following table,

Table 3.6: studies on relationship between CSP and CFP divided according to financial performance indicators (Dam, 2006)

Financial performance indicators	No, of studies	Positive relation	Negative relation	Mixed relation	No relation
Market-to book	5	5	0	0	0
Return on assets	36	27	0	0	9
Stock market returns	27	7	9	3	8
Total	68	39	9	3	17

These findings show that for market-to book we can expect a positive relation with social responsibility, for return on assets also a positive relation, and for stock market returns the relation is ambiguous.

McWilliams & Siegel, (2000) suggests that the reason for inconsistency of results related to the relation between social and financial performance is the flaw in existing econometric studies. These studies do not control for investment in R&D which has been shown to be an important determinant of firm performance and they stated that when the model is properly specified we find that CSR has a neutral impact on financial performance. Husted & Allen, (2007) argued that the positive relationship between CSR and financial performance will be found when companies design CSR projects in ways that seek to achieve competitive advantage for companies (Husted & Allen, 2007: 346).

Berman, et al, (1999) used the stakeholder relationships and a firm strategy as impacts on CFP, and they suggest three models as following;

- The direct effect model which stakeholders relationships and corporate strategy have direct and separate impact on CFP
- The moderation model which corporate strategy have a direct impact on CFP but moderated by the impact of stakeholders relationships

- The intrinsic stakeholder commitment model which the company has an intrinsic commitment to its various stakeholders which puts their interests at the heart of strategic decision making

The empirical work which was carried out to test these three models showed support for first and second models and not support for third model. They found that two stakeholders' relationships –employees and customers- have direct impact on CFP, while all five stakeholder relationships- employees, customers, community, natural environment and diversity of workforce- moderated the corporate strategy-performance relation.

### **3.2.2 Economic consequences of CSD**

It is clear that general awareness and concern in society for matters such as environmental degradation, habitat destruction, global climate change, human rights, and stakeholder involvement, continue to increase. It certainly seems likely that the number of potential areas in which social or environmental activity can have relatively direct financial consequences must increase. These consequences can be of a cost-saving nature, cost or liability avoidance, revenue-generating, or even simple signals of best-in-class management practices (Murray, et al, 2006: 231).

A number of studies have paid attention to study the market reaction to CSD. Parsa & Kouhy, (2001) examined the relation between CSD and different aspects of performance.

The different aspects of performance and their measures are;

performance aspects	accounting ratios
Profitability	Trading profit margin
Managerial efficiency	Stock ratio (days)
	Debtors (days)
	Creditors (days)
Gearing ratios	Reference and loan capital/equity and reserves

Liquidity ratio

Working capital ratio

The empirical results show that profitability and gearing were found to be positively associated with CSD, concerning of managerial efficiency only stock ratio was associated with CSD, while no association between liquidity and CSD.

To examine whether social disclosure has information content, Ingram, (1978) examined the impact of corporate social disclosure on security returns using two related tests; one analyzed returns from a broad spectrum of the market, and another investigate the return performance of specific market segments. The results indicated that in first test, the social disclosure has no information content, while the second test suggest that the information content of social disclosure varies between companies. These results suggest that the information content of corporate social disclosure is conditional upon the market segment with which the company is identified. Anderson & Frankle, (1980) examine whether social disclosure has information content and if the market values this disclosure positively. They compared the returns to portfolios composed of securities of socially disclosing companies with the returns to portfolios of equivalent risk composed of securities of non-disclosing companies. The mean returns of the portfolios are compared over two six-month periods (pre- and post fiscal year), if social performance information have no information content. Then the mean returns for the disclosing and non-disclosing portfolios should be equal. The results indicated that social disclosure has information content and that the market values this disclosure positively.

To explore the decision usefulness of narrative disclosure on corporate environmental performance, Chan & Milne, (1999) examined the investors' reaction to two states of corporate environmental performance; one the company discloses about its bad environmental performance(bad news), and another the company discloses it is a leader

in environmental management(good news). The results indicated that the investors react strongly and negatively to the poor environmental performance, while there is no significant reaction to the good environmental performance. Shane & Spicer, (1983) indicated that empirical studies provide on limited support for the proposition that investors using social performance information in making investment decision, so they examined the relation between security price movements and externally produced social information through examining the association between security price movements and the release of 8 major studies conducted by the Council on Economic Priorities (CEP) of corporate environmental performance in four important USA industries ( pulp and paper, electric power, iron and steel, and petroleum). The results indicated that, on average, there are relatively large negative abnormal returns on the two days immediately prior to newspaper indicated to the release of CEP studies. In addition, the companies revealed to have low-pollution control rankings were found to have significantly more negative returns than companies with high rankings on the day of publishing reports. These results report some significant association between security price movements and the release of externally produced social information, and point to that investors using information released by CEP to discriminate between companies with different pollution control performance. Freedman & Stagliano (1991) examined investor reaction to the Supreme Court's affirmation that work-place cotton-dust emissions had to be reduced. The results show that stock prices of companies in cotton-textile industry were negatively affected by Supreme Court decision. The share price of companies which provided no disclosure or only narrative disclosure declined relative to companies which provided quantitative disclosure about the decision impact.

Epstein & Freedman, (1994) examined whether or not individual investors demand social information. Using a survey of 300 individual investors, the results indicated that non-institutional shareholders are interested in having their corporations report on some information concerning social activities. It appears that there is a strong demand for information about product safety and quality and about company's environmental activities.

Belkaoui, (1972) and Longstreth & Rosenbloom, (1973) (as cited in Ingram, 1978,) were two of the first studies to examine the relevance of the social information for investors. The first study surveyed groups of bank officers, practicing accountants, and students, and the results indicated that the disclosure of pollution costs had an impact on investment decision. The second study surveyed institutional investors and found that approximately 57% of the respondents stated that they did consider social factors in addition to economic factors (Ingram, 1978: 271).

Solomon & Solomon (2006) used interviews with UK institutional investors to examine the benefits of social, ethical and environmental disclosure (SEE) for institutional investment. The results indicated that investors did not consider public SEE was adequate for their investment decisions. Therefore, private SEE disclosure channels were developed, and private SEE disclosure process was becoming dialogic in nature, as both companies and institutional investors are require information from each other.

To examine the influence of environmental information on share prices, Stevens, (1984) suggested that investors are motivated by factors other than risk and return, and he believed that if such investors (ethical investors) were numerous their behaviour might affect share prices. And to investigate whether share prices are systematically affected by

environmental disasters, Blacconiere & Patten, (1994) found that companies with more disclosure prior to the Bhopal disaster in 1984 faced a less negative market reaction to disaster than other companies in the chemical industry who disclosed very little on environmental matters. Gozali, et al, (2002) examined the relationship between the environmental information disclosed in the annual report and the company's share price, using data of Australian companies from 1998 to 2000; they found that companies with positive environmental disclosure perform significantly better in the market than companies that disclose negative environmental information. Balconiere & Northcut, (1997) examine the relation between stock price reaction to the superfund amendments and reauthorization act(SARA) of 1986 and the extent of environmental information in financial reports(10-K reports),they argued that companies with extensive environmental disclosure would be affected less negatively by the expected increased regulatory costs resulting from SARA. The results indicated that chemical companies with extensive environmental disclosure in their 10-K reports had a less negative reaction to SARA.

Recently, Murray, et al, (2006) explored the capital markets concern about social and environmental disclosure. They argued that financial markets are variously seen as offering the biggest single impediment or the greatest possible opportunity for international capitalism to re-invent itself in a new form that is compatible with the exigencies of sustainability. In the absence of an apparent will to closely regulate financial markets, it must fall to incentive, and persuasion to encourage markets to act in a manner less incompatible with the social and environmental aims of sustainability. a potentially major factor in achieving this ambitious re-direction must inevitably be information and ,in particular, information about corporation social and environmental

activities. This is a role currently fulfilled, albeit inadequately, by CSD mainly through corporate annual report. They stated that with significant growth in ethical investment funds, it is apparent that investors become less obsessed by financial return. Consequently, social and environmental disclosures may well offer an important source of direct input to these ethical investors' decisions. The results indicated that over a period of time, total social and environmental disclosure is significantly related to market returns even after adjusting for the size effect. Parsa & Deng (2007) examined the market reaction to the announcement of social and environmental information of new entrants to the London Stock Exchange over the period from 1999 to 2003. They searched for social announcements in two channels; investor relations websites of the companies, and the financial times online power search engine. They measured market reaction as the abnormal return on individual companies' share prices over three days when social information was released. The results show that of 249 non-financial companies that joined London Stock Exchange, there were 65 social information releases by 40 companies. The results provide evidence that there is an overall positive reaction to most social information announcements, and the profit could have been made if shares had been bought on the day social information were announced and were sold three days later. Despite this result being based on limited data, it supports the argument of legitimacy theory that companies use CSD to improve their public reputation.

Milne & Chan, (1999) study the usefulness of CSD for investment decision –making. They argued that traditional user group (investors) find social information useful for their investment decision making and companies are fulfilling these decision needs. The empirical results show that the decision impact is small with no more than a 15% switch



in investment funds being detected. Abbott & Monsen, (1979) examined the relation between social disclosure and the total returns for investors for 1964-1974, and the results indicated that there appears to be no effect of social disclosure.

Balabanis, et al, (1998) investigated the relationship between CSR (performance and disclosure) and economic performance (including financial performance measured by return on equity and gross profit to sales ratio, and market performance measured by systematic risk and excess market valuation) based on sample of large 56 UK companies. They found that CSD associated with concurrent financial performance. In particular, gross profit to sales ratio was found to influence disclosure positively. A combination of high CSP and good CSD was found have positive effects on overall company's profitability. A combination of low CSP and good CSD or high CSP and poor CSD was found to be not-economically rewarding strategies. Concerning market reaction, they found negative market reaction in the subsequent period to companies with high CSD.

Richardson & Welker, (2001) examined the relation between social and financial disclosure and the cost of equity capital based on a sample of Canadian companies. They argued that social disclosure could play a role similar to financial disclosure and reduce the cost of equity capital by reducing transactions costs and/or reducing estimation error. also ,social disclosure could influence the cost of equity capital directly through investors preference effects if investors are willing to accept a lower expected returns on investment that fulfil social objectives. The basic hypothesis is that there is a negative relation between social disclosure, as financial disclosure, and cost of equity capital. The results indicated, in contrast to the hypothesis, that there is a statistically significant positive relation between the level of social disclosure and cost of equity capital.

Lorraine, et al, (2004) indicated that studies which concentrated on environmental information in annual reports suffer from the problem that it is very difficult to attribute any share price changes at the time of the information disclosure to the environmental news since other information is also issued to the market (Lorraine,et al,2004:7). So they focused on externally produced environmental performance(it looks at publicity about fines for environmental pollution as well as commendations about good environmental achievements) to see whether such information influences share prices, the results indicated that there is a stock market response to such news specially for details on fines (Lorraine,et al,2004).

Cormier & Magnan (2007) examined the impact of voluntary environmental reporting (in both annual reports and environmental reports) on the stock market valuation of a company' earnings from two perspectives; the North American financial reporting context (Canada), and continental European financial reporting context (France and Germany). The results indicated that environmental disclosure has moderating impact on the stock market valuation of German company earnings, and does not influence on stock market valuation of Canadian and French company earnings. They presented three potential reasons for the absence of an impact of environmental disclosure on market valuation of company earnings; investors use other sources to be aware about environmental performance, investors may not care about environmental disclosure and what is being disclosed is too thin to draw any conclusion.

Plumlee, et al, (2008) investigated the association between the quality of company's voluntary environmental disclosure (as a part of annual report or 10-K or stand-alone report) and the components of firm value (cost of capital and expected future cash flow).

They documented a negative relation between both cost of capital and expected future cash flows and quality of voluntary environmental disclosure. They found that quality of disclosure within stand-alone report have a less impact than other media. Also, they found that the impact is less for companies that working in environmentally sensitive industries. Dhaliwal, et al (2009) examined whether producing stand-alone corporate responsibility reports and social performance indicators are associated with reduction in cost of equity capital. They performed various types of analyses to answer some questions; (1) whether companies' desire to reduce cost of capital motivates them to produce CSR reports. The findings indicate that companies with higher cost of equity are more likely to produce CSR reports reflecting positive answer to the question. (2) Whether the producing of CSR reports leads to lower cost of equity capital. The empirical results indicated that publishing of CSR reports is not associated with lower cost of equity, while social performance indicators are significantly associated with lower cost of equity. This result reflects that investors evaluate corporate social performance. (3) What is the mechanism that causes CSR reports to be associated with lower cost of equity capital? The results indicate that reporting companies with superior social performance attract institutional investors and have lower forecasts errors and dispersion. (4) Whether reporting companies exploit the benefit of a reduction in the cost of equity capital by issuing equity capital after CSR reporting. The results indicate that reporting companies are more likely to conduct seasoned equity offerings reflecting a positive answer to the question. The results of this study suggest that investor are more likely to be interested in social performance, and at the same time, it appears that investors are more interested in

social performance indicators than CSR reporting. Also, these results refer to economic benefits of CSD is significantly associated with good social performance indicators.

In addition to previous studies, Patten & Trompeter, (2003) presented another viewpoint of the consequences, which they examined the relation between environmental disclosure and the extent of earnings management in response to regulatory threat. They argued that several investigations document that companies appear to manipulate discretionary accruals to report lower income in periods of heightened political scrutiny. The empirical results, based on a sample of 40 US chemical companies, show that companies with higher level of environmental disclosure tended to take less negative discretionary accruals which support the argument that companies use environmental disclosure as an effective tool for reducing exposure to potential regulatory costs.

### **3.3 Limitations of Prior Studies**

Previous studies on the benefits of CSD suffer from some limitations. While these studies are interested in examining the relationship between CSD and other variables which represent indicators to financial performance and corporate reputation, they are not interested in clarifying the concept of the consequences of CSD. No study has attempted to discuss the concept of the consequences of CSD as a complete framework. The studies that are interested in the analysis of market reaction to CSD, suffer from similar limitations concerning CSD, as these studies have concentrated on quantity of disclosure in annual reports. These limitations of CSD could indicate that the studies provide an incomplete picture of CSD and consequently they could provide misleading results. The studies that examined the relationship between corporate disclosure and corporate reputation have been primarily focused on environmental disclosure and environmental

reputation, so these studies have provided an incomplete picture for the relationship between CSD and corporate reputation. While there are many studies that examine the relationship between corporate social performance and corporate financial performance, there are few studies which were concerned with the relationship between CSD and corporate financial performance and, in particular, corporate market value, which is considered the final result for company management. According to a rational and cost/benefit approach to voluntary disclosure, the companies voluntarily disclose only the information that they perceive will increase the value of their companies (Verrecchia, 1983; Craswell & Taylor, 1992).

In brief, previous literature, on one hand, suffers from limitations concerning CSD, related to ignoring the quality of CSD and ignoring stand-alone reports. On the other hand, previous literature yielded inconclusive results about the economic consequences of CSD, in addition to its interest in the reputational impact of environmental disclosure only, and as a general rule there is no clear theoretical explanation for the consequences of CSD. Thus, the next section presents a theoretical background for suggested consequences of CSD.

#### **4. SUMMARY**

This chapter has focused on the analyses of previous studies related to both determinants and consequences of CSD. Regarding determinants of CSD, the literature did not provide an integrated framework which could provide a complete picture of CSD quantity and quality in both annual and stand-alone reports, based on a clear theoretical background for these determinants. With regard to the consequences of CSD, previous literature

yielded inconclusive results concerning the economic consequences of CSD, as well as its interest in the reputational impact of environmental disclosure only, and in a general there is no clear theoretical explanation for the consequences of CSD. The next chapter therefore, presents a theoretical framework for suggested determinants and consequences of CSD.

# Chapter 4

## THEORETICAL FRAMEWORK

## Chapter 4

### **Theoretical Framework**

#### **1. INTRODUCTION**

Accounting Theory Development can be defined as “a piecemeal process of trial and error in response to changing social and economic forces” (Underdown & Taylor, 1985: 2). There have been many approaches in the development of accounting theory, such as the deductive, inductive, ethical, sociological and economic approaches, and the more modern, positive and normative accounting theories (Riahi-Belkaoui, 2004: 110). The two main, classical methods of theory construction are the deductive and inductive approaches. The deductive approach formulated a theory, and then developed the principles and techniques used in implementing this theory. The theory was then verified by looking at reality. The inductive approach looked at accounting in practice, and formed a general theory to suit this practice by analysing recurring relationships. In terms of the modern approaches, positive theory of accounting looks at how things are currently practised, while normative theory develops a theory on what the principles ought to be. These theories follow the traditional guidance of the inductive and deductive approaches respectively. The following table presents some differences between deductive and inductive approaches;



**Table 4.1: Some differences between deductive and inductive approaches**

Stage	Deductive	Inductive
1	Develop theoretical framework	Area of inquiry identified but no theoretical framework
2	Variables identified for relevant constructs	Respondents identify constructs and explain the relationship between them
3	Instrument development	Broad themes for discussion identified
4	Outcome: theory tested according to whether hypotheses are accepted or rejected	Outcome: theory developed

Source: (Ali & Birley, 1999: 106)

In terms of this study, the deductive approach is considered to be an appropriate approach in line with the nature and objective of the research. The deductive approach begins with statements that are assumed to be true and then moves from general rules to specific solutions (Belkaoui, 2004: 111). In the deductive approach there is a well-established role for existing theory because it informs the development of hypotheses, the choice of variables and the measures (Ali & Birley, 1999: 103). The stages of deductive approach are: (1) think of theory that is appropriate to the topic; (2) narrow this theory to specific hypotheses; (3) collect observations; and (4) test hypotheses. In line with these stages, the theoretical framework of this research has adopted legitimacy theory as an appropriate theory. From the perspectives underlying this theory, specific models have been developed to explain the determinants and consequences of corporate social responsibility disclosure (CSD) through a number of hypotheses.

CSD in most cases is a voluntary activity that varies between companies and countries. There is a growing body of literature that focuses on explaining this variation. Although there is widespread academic interest in CSD, no comprehensive theoretical framework has yet been developed which can interpret CSD in terms of the determinants and

consequences. Thus, Gray et al. (1995a) point to empirical studies relying on different theoretical and methodological constructs within various national contexts.

In order to build a consistent and coherent theoretical framework that explains voluntary CSD, the basic idea that informs the motivation behind CSD should be clarified. The main motivation behind companies voluntarily disclosing social and environmental information is pressure from the community. This social pressure results from the awareness of the importance of social and environmental matters, as well as economic concerns. Different companies have responded in different ways to this pressure, according to various factors that determine (the determinants) the level of social responsibility information (quantity and quality) provided by each company. The main benefit of meeting the requirements CSD is to mitigate the social pressure; however, in addition, companies can expect financial benefits from any disclosure.

The use of an appropriate theoretical framework that clarifies CSD should help explain: how the community is becoming more aware of the importance of non-economic issues; how companies deal with this new focus; and how companies can benefit from their disclosure. The theoretical framework should include two levels: the country level; and the corporate level. The country level includes the factors that determine the level of community awareness concerning the importance of corporate social responsibility (CSR) and therefore the level of pressure on companies. The corporate level includes the factors that determine a company's response to social pressure and therefore the level of disclosure. It should also identify the benefits of this disclosure for the companies. The two types of factors are related, so that the factors at a country level influence those at a company level. Dong et al. (2007) argue that the variables at the company level may be

the compound products of company systems and national systems. Firm theories suggest that the features of the macro-environment may be reflected in company-specific characteristics. For example, in large companies in each country, the level of leverage ratio may be noticeably influenced by the financing system of the country. As another example, a company's multi-national activities are closely related to the macro-economic policy of the home country (Dong et al., 2007: 11).

Thus, theoretical framework for the research incorporates the two levels of analysis. The country level seeks to clarify the differences in the volume of social disclosure among different countries, in order to understand how these differences affect the degree of community-awareness and consequently social pressure on the companies. Political economic theory provides a useful basis with which to understand this level of analysis. At the companies' level there are two relevant dimensions to be assessed. First, it is necessary to clarify the differences in the level of social disclosure among the various companies and, second, to interpret the consequences of this disclosure. In this context, it is necessary to understand why the social pressure results in differences in the levels of CSD among companies. Legitimacy theory provides a useful method of analysis for understanding how companies legitimise their activities for their stakeholders, and/or society as a whole when facing social pressures. As a result of this legitimisation process, companies expect to benefit from the process.

The rest of the chapter is organised as follows: section two provides the analysis for the theoretical framework, while sections three and four discuss the country level and the company level respectively.

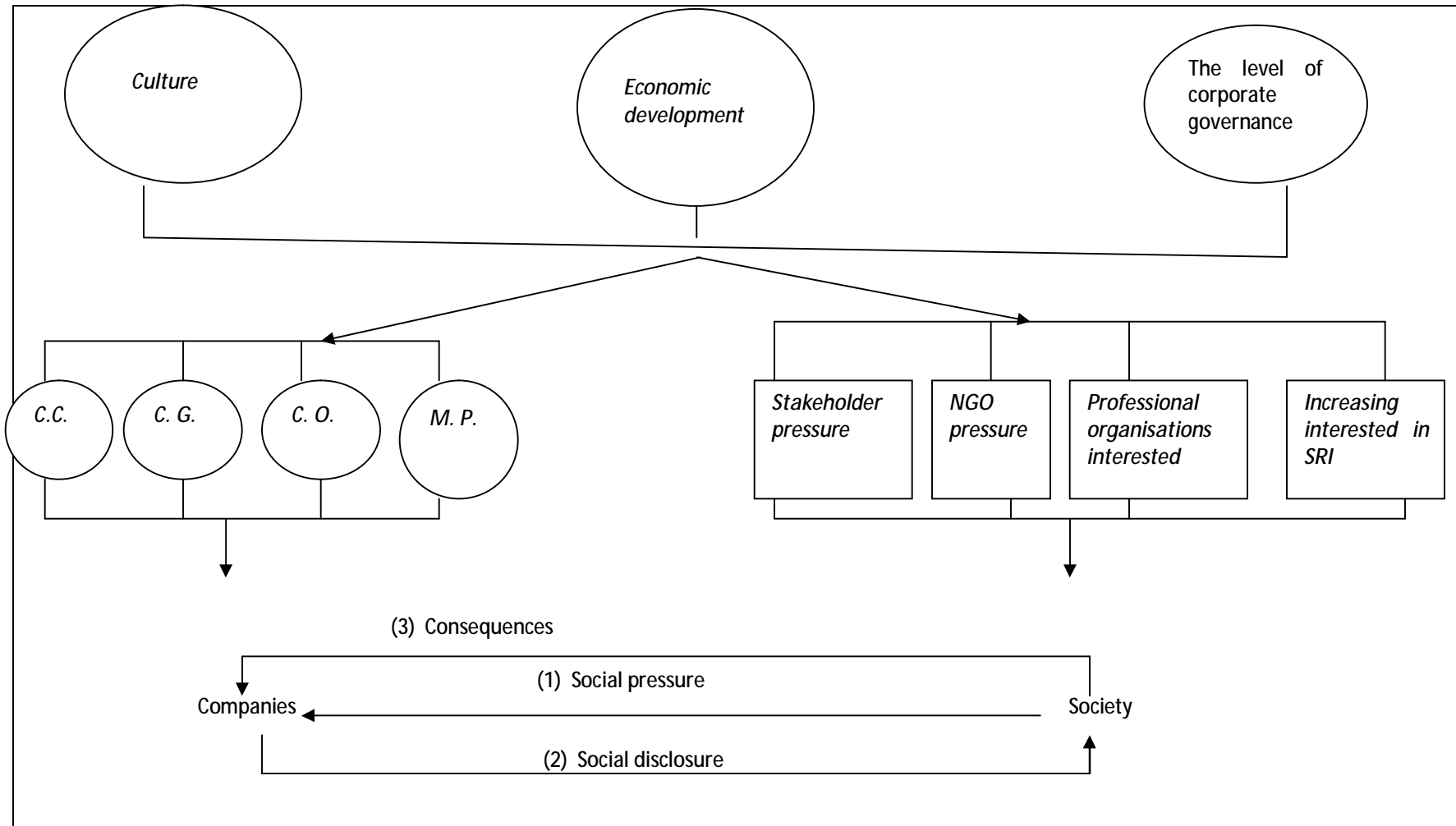
## 2. INTEGRATED FRAMEWORK

The starting point for explaining the concept of CSD is to understand how it is viewed by a community views. According to political economy theory at a country level there are a number of social factors involved in the formation of society's awareness of the importance of social and environmental issues, namely: the country's level of economic attainment; and the cultural dimensions of its society. These factors are combined as follows: a high level of economic attainment indicates that basic economic needs are satisfied, which consequently provides an opportunity for members of the community to give greater attention to non-economic issues. The cultural values in any society play a key role in what issues are considered important. These two variables interact to create a societal awareness that is reflected in the emergence of groups (stakeholders, non-governmental organisations (NGOs), professional organisations, and socially responsible investment (SRI)) that focus on the social and environmental responsibilities of companies. The activities of these groups combine to create a social pressure on companies regarding the impact of their activities on the environment and on society as a whole. In responding to this pressure, companies attempt to provide information about how socially responsible their activities are. Furthermore, the level of corporate governance in a country can be an important factor in the interpretation of the level of the responses of companies to this social pressure.

According to legitimacy theory, companies respond to social pressures in order to legitimise their activities in order to continue operating in the market. CSD is considered to be part of the legitimisation strategies. Two questions can be raised in this regard: Do all companies face the same degree of social pressure? Do all companies respond to this

pressure in the same degree? The answers to these questions are determined by certain factors (corporate characteristics, media pressure and degree of multi-national activities, corporate ownership structures and corporate governance) which vary among companies. These factors determine the level of CSD (quantity and quality) by individual companies. Consequently, in theory if companies succeed in legitimising their activities (by providing a high level of quantity and quality of CSD) they should be rewarded by the different sectors of society. The integrated theoretical framework is represented diagrammatically in figure 4.1.

Figure 4.1: the integrated theoretical framework



Where CC is corporate characteristics, MP media pressure, CG corporate governance, and CO corporate ownership

### 3. THE COUNTRY LEVEL

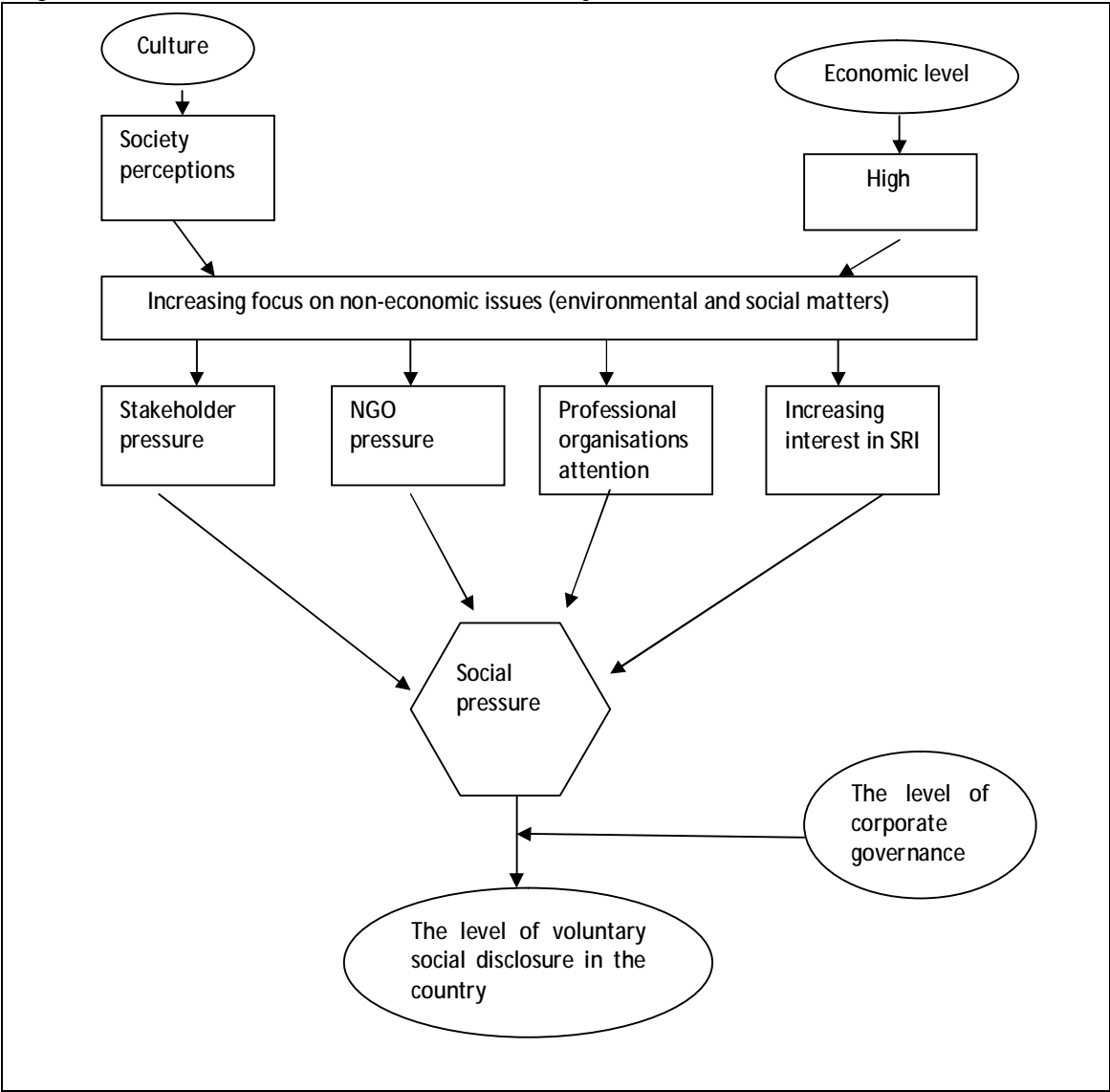
Previous research indicates that the level of CSD varies between different countries. Therefore, there is a need to explain these differences. Smith et al. (2005) argue that while international differences in corporate financial reporting have been extensively studied, the reasons for international differences in CSD are not well understood (Smith et al. 2005: 125). The starting point for understanding the variations in CSD is to explain how each country devotes more (or less) attention to this type of disclosure. In this regard, the bourgeois political economic theory, a derivative of the modern liberalism perspective, is being increasingly utilised in voluntary environmental and social disclosure. According to Williams (1999), differences in the quantity of voluntary environmental and social disclosure may be due to variations in country level characteristics that shape the socio-political and economic systems of the respective countries. Gray et al. (1996) classify political economy theory in two forms, classical and bourgeois. Classical political economic theory is related to the existence of class interests, power and conflict within society. Bourgeois political economic theory ignores the existence of particularly powerful groups in society, instead focusing on group interactions within society. The usefulness of political economy theories is that they consider the political, social and institutional framework within which economic activity takes place (Gray et al., 1995a: 52). In addition, political economy theories assess corporate disclosure as a reaction to the existing demands of corporate stakeholders, and consider accounting reports as social, political and economic documents (Guthrie & Parker, 1990: 166).

Dong et al. (2007) state that cross-country studies document the fact that country-level factors, including economic development status, cultural values and legal systems have a substantial influence on corporate disclosure (Dong et al., 2007: 5-6). Archambault & Archambault (2003) state that, “Accounting exists along with other systems, such as political

systems and economic systems. Systems within a country share a cultural environment. Culture influences what goes on within each system, as well as how the systems interact with one another” (Archambault & Archambault, 2003: 175).

Based on the notion of societal variables that describe factors to which all companies within a particular country are subjected, and which vary between nations, the following model is suggested to explain the differences between CSD at the country level.

Figure 4.2: Theoretical framework at the country level





This model depends on four main aspects: (1) the factors that create social attention on non-economic issues; (2) the pressure groups which interpret this attention to put actual pressure on companies; (3) the concept of social pressure which is considered the main motivation for CSD; and (4) the level of corporate governance which is considered an important factor in determining how companies react to public expectations.

The assumptions underpinning the model are that at the country level a high level of economic development leads to the satisfaction of a large part of the economic needs of individuals. This satisfaction provides an opportunity for society members to move beyond considering only economic issues, to the importance of non-economic issues such as CSR. At the corporate level, a high economic level of attainment means that there is a substantial probability that the companies have the financial capacity to establish a sophisticated information system allowing them to disclose social and environmental information. In addition, the prevalent cultural values of a society are assumed to determine the extent to which individuals possess sufficient awareness that they can impact on the activities of the company in relation to the environment and the community as a whole. These activities may acquire the same level of importance as the economic impact of those activities. In addition, the individuals have the ability to influence companies.

The interaction between these factors (economic level of attainment and culture) leads to increasing societal awareness of the concept of CSR. Consequently, it is possible for pressure groups to emerge, such as:

- ¶ Growing stakeholder power;
- ¶ A growing role for NGOs and civil society;
- ¶ Increasing awareness by professional organisations of the importance of social and environmental matters; and
- ¶ An increasing number of investors interested in SRI.

These groups create pressure on companies, which in turn they try to reduce. The level of corporate governance of the country appears to play an important role in determining the degree of responsiveness shown by the companies, with changes occurring in the community; among them an increasing interest in CSR. The main sections of the model can be explained as follows:

### **3.1 Factors Determine Social Pressure**

Different countries devote different levels of attention to non-economic issues. It can be argued that a starting point for paying attention to social and environmental matters is a high economic level. Then, cultural dimensions in a community could lead to an increase or a decrease in this level of attention.

#### **3.1.1 Economic level**

The impact of economic level on CSD can be theorised based on two pillars; the positive impact of economic level on social life and the positive impact on corporate disclosure practices. Concerning first pillar, economic development impacts on a society, in that a high level of economic development creates more needs and increasing expectations. Diener & Diener (1995) found that economic level (the wealth of a nation) is associated with quality of human life and the basic fiscal needs were met early in economic development. Arthaud-Day & Near (2005) found that absolute income is stronger predictor of happiness. Robila, (2006) provide evidence that indicated the relation between economic and social concerns is strong. Schyns, (2002) indicated that, independent of individual income, the economic prosperity of a country contributed to a person's life satisfaction level. Gordon, (1990) stated that as the level of economic development increases, demands for better living conditions, education, work safety and training would also become greater. Moaddel, (1994) argued that greater economic development will be accompanied by a growth in the number and strength of pressure and monitoring groups, such as labour unions and consumer bodies that seek to

ensure an equitable distribution of benefits derived from enhanced economic wealth. Therefore, as economies develop, the expectations concerning the role of companies are changing and more attention will be paid to the social role of companies in community.

With regard to second pillar, conceptual studies of accounting and socio-political and economic systems have identified economic factors as important determinants of the development of accounting and reporting practices (Williams, 1999). Riahi-Belkaoui, (2002) argued that the economic environment is important to the development of accounting in general and reporting and disclosure in particular. Choi, et al, (2002) argued that the development of disclosure system closely parallels the development of an accounting system, and accounting system is closely influenced by the level of economic development. Dong, et al, (2007) argued that countries at different stages of economic development are expected to have different accounting practices. The more developed economy, the more demand for disclosure, and a high level of disclosure transparency contributes to creating and maintaining the confidence in capital markets which in turn encourages a better flow of foreign investment into a country (Qu & Leung, 2006). The social function of accounting to measure and communicate data become more important as economic develops (HassabElnaby, et al, 2003). Chambers, et al, (2003) assumed that a higher level of wealth would reflect greater resources that could be re-invested in the society through CSR. Indeed, in countries where the level of economic growth is relatively high, the social function of accountancy as an instrument of measurement and communication is of considerable importance. Business and economic activities will reach a size and complexity that require a sophisticated high-quality accounting system and standards (Zeghal & Mhedhbi, 2006).

Theoretically, there should be a positive impact on the level of disclosures and reporting practices in a given nation as the level of economic development increases (Doupink & Salter, 1995). On the other hand, the economic level has impact on public needs and

expectations. Therefore, it can be argued that high economic development leads to satisfying economics needs and consequently paying more attention to non-economic matters. But depending only on economic growth as a justification for engagement in social and environmental disclosure, without integrated with cultural factors, is not sufficient.

### **3.1.2 Culture**

The impact of culture on CSD can be theorised based on the notion that culture is a very important determinant of public perceptions toward different concerns. Culture influences perceptions of the quality of life and the level of life satisfaction (Near & Rechner, 1993; Oishi, et al, 2009). On the other hand, the social values of the publics within which companies exist influence how a company operates and reports (Deegan & Rankin, 1996). Culture is predominant attitudes and behaviours that characterise the function of a group, and consider an important determinant of public perceptions toward various concerns. So, culture values in a given country play an important role in determining public perceptions toward CSR. “examining societal values or culture would be helpful in identifying countries that would have different perceptions of a company’s stakeholders and their influences on a corporation’s CSD practices” (Smith, et al, 2005: 132). According to Adams, (2003), there is a relationship between culture context and reporting, and according to Taskumis, (2007) there is possibility that accountants' disclosure decisions are more heavily influenced by cultural values than the recognition decision. Also Hofstede, (2001) suggests that the more judgment an activity requires, the more it is ruled by values and thus influenced by cultural differences. CSD is a voluntary activity, so it requires to judgment, therefore, it is widely to be influenced by cultural factors.

The early studies on the influence of culture on financial accounting and reporting could be traced back to mid-1970s, the literature on culture is fragmented until 1980 when Hofstede,

(1980) identified four dimensions of societal culture, and the Hofstede's cultural framework has been used in several accounting and reporting studies (Qu & Leung, 2006).

Culture dimension can depend on Hofstede's four values<sup>12</sup> which can use to differentiate between cultures. These cultural values are; Strong versus weak uncertainty avoidance, Individualism versus collectivism, Masculinity versus femininity and Large versus small power distance

Gray, (1988) theorized connections between Hofstede's cultural values and accounting values. By doing so, he provides the most comprehensive description of the ways that accounting systems can differ as a result of a cultural variation. Gray's model describes accounting values in four dimensions: Professionalism versus statutory control, Uniformity versus flexibility, Conservatism versus optimism and Secrecy versus transparency<sup>13</sup>

Gray proposed the following hypothesis that explains the relationship between secrecy and Hofstede's cultural dimensions;

"The higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of secrecy."

The relationship between Gray's accounting dimensions and Hofstede's cultural dimensions can be summarized in the following table;

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<sup>12</sup> The theory of cultural dimensions developed by Hofstede, 1980 has been widely studied in the fields of sociology, organisational theory, and more recently in accounting literature. An analysis of social citation index reveals that over the period 1981-1992, the theory has been cited in 583 studies in many different fields (Sudarwan & Fogarty, 1996)

<sup>13</sup> Secrecy is a preference for confidentiality and the restriction of disclosure of business information to those who are closely involved with its management and financing. As such, it can be contrasted to a more transparent, open and publicly accountable preference.

Table 4.2: cultural values and accounting dimensions

Cultural values (Hofstede)	Accounting values(Gray)			
	Professionalism	uniformity	conservatism	secrecy
Power distance	-	+	?	+
Uncertainty avoidance	-	+	+	+
individualism	+	-	-	-
masculinity	?	?	-	-

{+ indicates direct relationship, - indicates an inverse relationship, ? Indicates indeterminate relationship}  
Source; (Baydoun & Willett, 1995: 71)

The relationship between accounting values and accounting practices as following:

Table 4.3: accounting values and accounting practices (Baydoun & Willett, 1995)

Accounting values	Accounting practices
professionalism	authority
uniformity	application
conservatism	measurement
secrecy	disclosure

Jaggi & Low, (2000) explain Gray's hypothesis as follows:

- The cultural dimension of uncertainty avoidance, which indicates the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity, is associated with lower disclosure of financial information.
- the cultural dimension of power distance ,which relates to acceptance of institutional and organizational authority by individuals, suggests that high power distance societies are secretive and do not encourage information sharing, which means there is a negative association between power distance and financial disclosure.
- The culture dimension of individualism encourages competitive environments, which suggests that these societies would be less secretive, thus there would an expectation of a positive association between individualism and financial disclosure.
- The culture dimension of masculinity refers to societal preference for assertiveness, high achievement, and financial success, which means that business institution, would be much stronger in these societies, and individuals will value the achievement of goals. Thus, there will be a positive association between masculinity and financial disclosures.

So, there are negative relationship between uncertainty avoidance and power distance with disclosure. While, there are positive relationships between individualism and masculinity with disclosure. However, Gray considers the link between masculinity and disclosure to be less important.

It can be argued that because cultural values are important factors in determining society's perceptions, they play a critical role in determining the degree to which the society will be aware of the importance of social and environmental matters.

The interaction between high economic level and some cultural values leads to increasing interest in CSR. This increasing attention has been reflected in the emergence of some parts of the community directing a large part of their attention to the social responsibility of companies. These parts can play the role of pressure groups in the country.

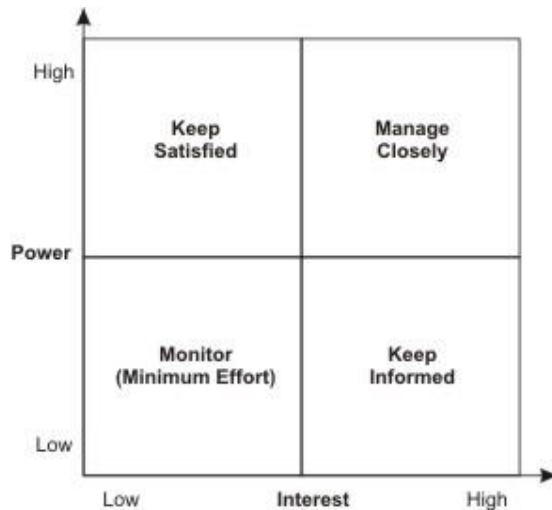
### **3.2 Pressure Groups**

Increasing attention paid to non-economic issues leads to the emergence in some parts of society which focus their attention on social responsibility of companies. These parts put pressure on companies concerning the impact of their activities on community, and are called pressure groups. In this concern, Tilt, (1994) argued that "a general presumption has emerged that community pressure groups are a major source of influence on companies' social disclosure practices" (Tilt, 1994: 47). In Anglo-Saxon society, the demand for legitimacy may come from some groups such as consumers (Haniffa & Cooke, 2005: 394). The most important parts of the community that may pay attention to the social and environmental matters are;

#### **A. Stakeholders**

Stakeholders are groups of people, who have an interest in a business organization; they can be seen as being either external to the organization, or internal. The transformation from concentration only on corporate shareholders to concentration on a wide variety of

corporate stakeholders represents one of the most important drivers behind corporate social responsibility. We can differentiate between stakeholders according to their interest in corporate activities and the power which they have to influence corporate activities. The companies need to manage their stakeholders based on these two factors as the following<sup>14</sup>



#### B. Non-governmental organizations

NGOs are organizations independent from governments, consisting of a voluntary association of people that do not seek to challenge governments as political parties, and they are non-profit, non-violent, and non-criminal (Segerlund, 2005: 31). NGOs can be considered civil society actors, as they are often concerned to shape formal and informal rules that govern aspects of social life. They try to directly and indirectly impact on corporate activities (Adams & Whelan, 2009: 132). The level of NGOs activism dramatically increased involving direct campaigns, hard-line advocacy campaigns, and market campaigns (O'Sullivan & O'Dwyer, 2009: 562). It has been widely recognized that social and environmental NGOs have influence on companies, and many NGOs remain

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<sup>14</sup> This is derived from mind tools: Essential skills for your excellent career!

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skeptical about corporate motives for social disclosure and the type of information disclosed (Danastas & Gadenne, 2006: 54). Guay, et al, (2004) document the growing influence of NGOs in the realm of socially responsible investing (SRI), they find that NGOs have opportunities to influence corporate conduct via direct, indirect, and interactive influences on the investment community, and that the overall influence of NGOs as major actors in socially responsible investment is growing.

### C. Professional organizations

There are some professional organizations that draw the attention to corporate social responsibility disclosure, and issued some initiatives or guidelines in this context. Sylvie, (2003) indicated that accounting organizations getting involved in environmental disclosure through several initiatives that mandate, or encourage, companies to disclose environmental information likely to be of interest to stakeholders [Price Waterhouse, 1991; 1992; 1994; Federation des experts comptables europeens, 1993,1999; United Nations, 1992; Canadian Institute of Chartered Accountant (CICA), 1992; 1993; 1994; American Institute of Public Certified Accountants (AICPA), 1996; European Commission, 2001; Financial Accounting Standards Board (SFAS No. 143 and 144), 2002]. For instance, the AICPA has issued a Statement of Position<sup>1</sup> to serve as a guide for environmental debt reporting. In addition, over the last few years, The Financial Accounting Standards Board's Emerging Issues Task Force (EITF) has made several propositions concerning the accounting of environmental costs. In Canada; the Canadian Institute of Chartered Accountants (CICA) added guidelines to their standard dealing with provisions in financial statements for future expenditures for removal of fixed assets and site remediation. There are also some organizations that issued guidelines for corporate social responsibility or corporate social disclosure such as;

- OECD Guidelines for Multinational Enterprises

- ILO Conventions on Workplace Practice
- UN Global Compact A code of conduct for large companies launched by the UN Secretary General in 2000.
- Global Reporting Initiative (GRI)
- ISO standards
- Accountability 1000S (AA1000S) Standard issued by the UK Institute of Social and Ethical Accountability.
- Social Accountability 8000 (SA8000) Developed by Social Accountability International.
- Global Sullivan Principles.

#### D. Socially responsible investment

Socially responsible investment indicates that investors are combined financial objectives with their social values. It has grown which one of every eight dollars in the hands of professional money managers in US is allocated to such investment opportunities (Hill, et al, 2007: 167). The common definition of SRI is “an investment process that considers the social and environmental consequences of investment, both positive and negative, within the context of rigorous financial analysis. It is a process of identifying and investing in companies that meet certain standards of corporate social responsibility CSR” (Williams, 2005,). According to the National Round Table on the Environment and the Economy (NRTEE) nearly 50% of Europe’s financial institutions now offer responsible investment products, in Canada, responsible investment funds have grown, and total responsible investment assets managed in Canada in 2003 were \$51.4 billion. The total value of SRI assets in the UK increased from £23 billion in 1997 to £225 billion in 2001 (UK social investment forum). According to socially investment forum, SRI assets rose more than 258 percent from \$639 billion in 1995 to \$2.29 trillion in 2005, while the broader universe of assets under professional management increased less than 249 percent from \$7 trillion to

\$24.4 trillion over the same period. Sparkes & Cowton, (2004) argued that SRI not only has grown but it has also matured in some ways such as, we now have SRI stock market indices and there are several different approaches to the practice of SRI. Williams, (2005) argued that SRI investors appear to care more about social criteria rather than financial and shareholder interests and are more likely to punish companies for poor social performance as consumers as well as in their investment choices.

Mattingly & Greening, 2002, (As cited in Tilt, 2001) argued that lobby groups can influence the company via a variety of means including collaboration, mediation, coercion, and subversion. Depending on the relationship they have with the company or the salience of the stakeholder to the company. Collaboration and coercion are used when stakeholders has high salience, mediation is used when stakeholders has low salience, and subversion is used when both company and stakeholders have low salience.

O'Dwyer, et al, 2003,(as cited in Tilt, 2001) found that there is a demand for social disclosure information by lobby groups motivated by a desire for accountability. Deegan & Blomquist, 2006, found that the major environmental organizations in Australia, the world wide fund for nature WWF were able to influence environmental reporting practices in some way. Fiedler & Deegan, (2002) found that the collaboration between non-governmental organisations (NGOs) and business were motivated by stakeholder pressure. Tilt, (1994) found that lobby groups use social and environmental information produced by companies and attempt to influence their actions. And after 10 years, Tilt, (2001) repeated survey and found that lobby groups have some interest in directly trying to influence company' reporting, but their primary focus is on changing companies' activities. In contrast, Tilt, (1997) found that the companies themselves do not perceive lobby groups as having a major influence on their behaviour. The companies consider legislation as the most influential

followed by public opinion, stakeholders, consumers, and insurance companies, and finally lobby groups and the media.

It appears that these groups can create what will be known as social pressure which companies must to address.

### **3.3 Social Pressure**

The literature indicated that companies use CSD as a respond to public policy pressure regarding social responsibility. The social accounting can be considered as a reflection of social conflict between capital and other social interests such as environmentalists, workers, consumers, minorities (Tinker, et al, 1991: 46-47). The increasing of societal pressures on irresponsible companies, sometimes accompanied by negative media coverage or consumer boycotts, resulted in that private sector has adapted its relationships with society (Pater & Lierop, 2006: 339). Walden & Schwartz, (1997) indicated that public policy pressures in the 1960s and 1970s led to a substantial increase in corporate social reporting, and although this pressure seemingly decreased during 1980s, there appear to be renewed interest (Walden & Schwartz, 1997,:126). Increased public policy pressure can arise from the dissatisfaction of the public itself, new or proposed political action, and/or increased regulatory oversight (Walden & Schwartz, 1997:127). Boulding,1978,(as cited in Walden & Schwartz, 1997) argued that public policy pressure consist of three nonmarket environments; the cultural environment consist of values and attitudes of the general population, the political environment constantly creates new laws and new sanctions, and the legal environment which include laws, regulation and possible sanction. These environments all interact, for example, cultural changes can have a profound effect on political action and subsequently on the legal structure. Thus, public pressure can rise due to concerns of the general population, political bodies, or regulatory agencies (Boulding, 1978, as cited in Cho & Patten, 2007: 640).

From a legitimacy theory perspective the companies use disclosure as a means of responding to, and participating in, public policy pressure. Aerts & Cormier, (2006) argued that, in consistent with legitimacy theory, companies use corporate communication media, for example annual report disclosure and press releases, to manage perceived environmental legitimacy by signalling to relevant publics that their behaviour is appropriate and desirable, at the same time, react to public pressure by increasing the level and quality of their environmental disclosure (Aerts & Cormier, 2006: 3). CSD aims to influence people's perceptions about the company, in this respect, CSD is a public relations vehicle aimed at influencing people's perceptions (Hooghiemstra, 2000: 57). Cho, et al, (2006) argued that CSD can be considered as both reactive device and proactive policy. Several studies argued that environmental disclosure is one of methods which corporation use to address exposure to public policy and there is evidence that this disclosure appears to be used by companies as a response to negative environmental performance. On the other hand disclosure can be used as a proactive policy tool and some studies argue that disclosure can be used to anticipate, avoid, and manage social pressure (Cho, et al, 2006: 141).

It appears that from a community view of point, both economic level and cultural values determine the degree of social pressure in a given country. The question arises from the companies' points of view: What would determine the level of companies' responses to social pressure in a given country?

### **3.4 The Level of Corporate Governance**

How companies respond to social pressure is considered an important factor in determining the level of social disclosure in a country, and the level of corporate governance in the country is a determining factor in how the companies respond to social pressure. Corporate governance can be defined as the system by which companies are directed and controlled (Mallin, et al, 2005). It can be argued that the level of corporate governance in the country

reflects the commitment of companies to good governance factors which reflects the extent to which companies act in the interests of various stakeholders. Consequently, corporate governance is considered as an important factor that determines the extent to which companies will react to social pressure. The Ethical Resource Centre (2003) considers ethics as a core concept in corporate governance and the struggle against corruption. Without high standards of corporate governance, businesses may under-perform, while strong governance' companies on a habitual system based on ethical values will perform strongly (Cassidy, 2003). Chambers, et al, (2003) argued that Western governance is more developed and thus encourages greater CSR than in developing countries.

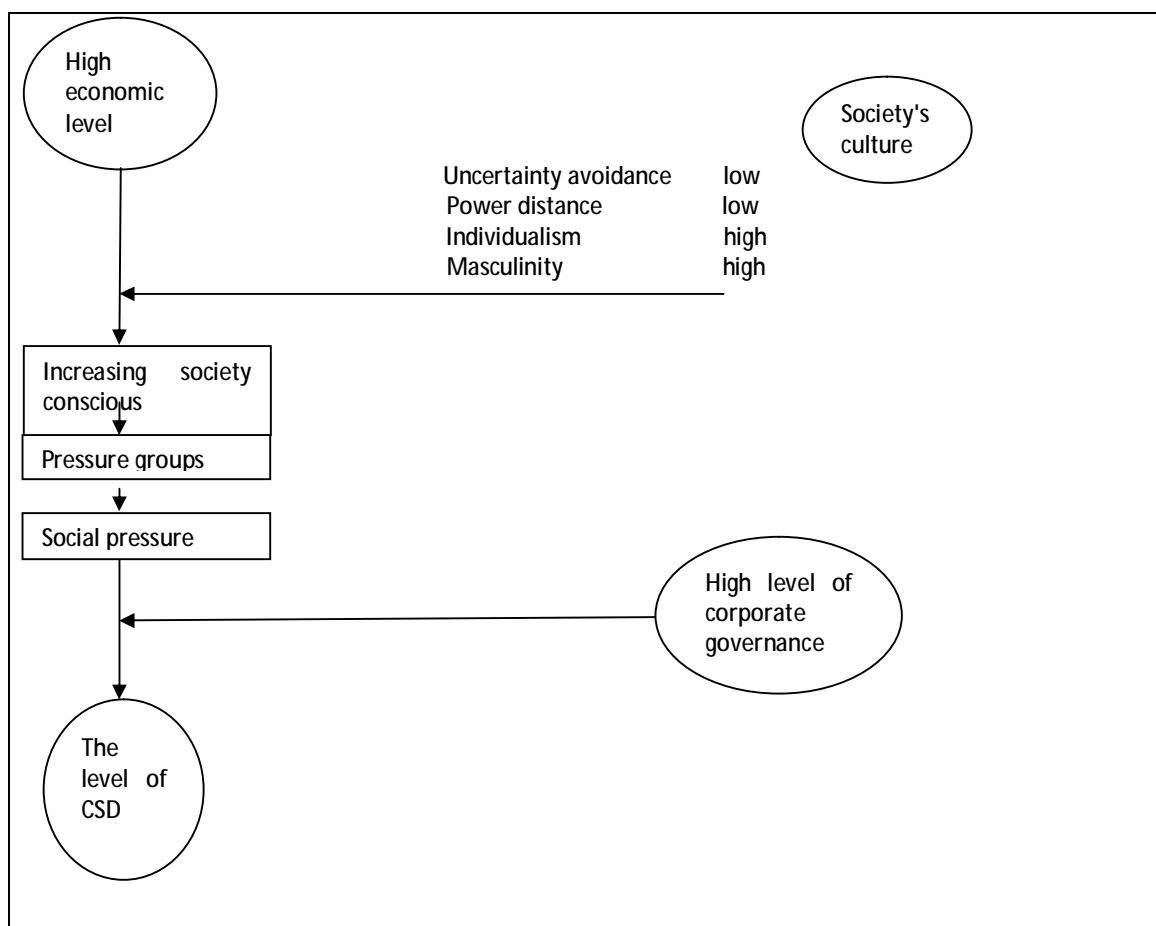
Mallin et al. (2005) indicated that no two corporate governance systems are alike; rules and practices in each country have developed in a specific legal and political environment. The level of corporate governance in the country is largely influenced by economic, social, and cultural factors in the country. Turnbull, (1997) argued that the cultural context is important in understanding Corporate Governance practices. O'Sullivan, (2003) argued that the evolution of systems of corporate governance is related to two types of arguments; first one economic and second one is political. Li & Harrison (2007) argued that a country's socio-cultural characteristics have important influences on governance structure (Li & Harrison, 2007: 608). Doidge, et al (2007) argued that economic development has more influence on a country's corporate governance practices than do corporate characteristics. Cornelius (2005) argued that the country factors can play a key role in setting the corporate governance framework. Legal, political, historical and cultural factors interact and help determine attitudes towards the role of the companies in the economy (Cornelius, 2004: 13).

Smith, et al, (2005) indicated that there are two corporate worldviews influence country's corporate governance structure; contractarianism and communitarianism. Corporate governance structures in contractarian countries (US and other Anglo-American countries)

primarily revolve around managing shareholder relations and promoting shareholder value, so there is a strong shareholder orientation in the corporate governance system in these countries. Communitarian perspective has social responsibility toward all stakeholders, so there is a stakeholder orientation in the corporate governance system in communitarian countries (Smith, et al, 2005: 129-130). But, Williams & Aguilera, (2008) indicated that there is doubt on a unified Anglo-American system of corporate governance which legal developments and institutional contexts concerning CSR in UK show similarities with Europe and contrasts with US (Williams & Aguilera, 2008: 9). While the country factors influence the framework of corporate governance, there is no guarantee that all companies in a given framework will demonstrate the same corporate governance standards (Cornelius, 2005: 15).

The level of CSD in a given country will therefore be determined according to two dimensions: the degree of social pressure and the degree of companies' responses to this pressure. Consequently, the differences between countries at the level of CSD can be explained according to the differences among countries in these two dimensions. These dimensions can be translated into specific factors, in which it is argued that a country's socio-economic factors and the level of corporate governance in the country will interact to determine the level of social disclosure in a given country. According to the previous explanation, the status of CSD in a specific country depends on three factors and these factors influence the CSD status according to the following model:

Figure 4.3: Model of CSD in a specific country



## 4. THE COMPANY LEVEL

This section explains the level of companies' engagement in CSD in terms of two questions. What determines companies' engagement? What are the benefits that accrue from this engagement? Legitimacy theory provides the theoretical background for this analysis. Therefore, this section discusses the legitimacy theory, the determinants of CSD and the consequences of CSD.

### 4.1. Legitimacy Theory

Liu et al (2006) argue that a wide body of literature uses legitimacy theory to explain incentives for corporate voluntary disclosure (Liu et al, 2006: 8). According to legitimacy theory, CSD aims to legitimise company behaviour by providing information intended to



influence stakeholders' and eventually society's perceptions about the company (Hooghiemstra, 2000: 57). Legitimacy theory suggests that companies use CSD as a means of addressing exposure to public policy. According to Patten (2002a), the differences in the extent of CSD are a systematic function of differences in public policy pressure facing individual companies. In the majority of cases, individuals are not aware that a particular course of action is the best way to achieve a certain objective, or that one objective is better than another. In the face of such uncertainty, a social system develops as rules, norms, values, and models come to be accepted by social actors as legitimate (acceptable, desirable, appropriate). When faced with uncertain decisions, social actors refer back to these rules, norms, values, and models in order to proceed. (Zimmerman & Zeitz, 2002: 416). Companies need to be in accordance with society's rules to gain acceptance (legitimacy) from other areas of society. According to Zimmerman and Zeitz (2002) legitimacy is not directly observable and has to be conceived as a social assessment or appraisal of acceptance, appropriateness and/or desirability.

The concept of legitimacy is a multi-faceted and multi-dimensional phenomenon (Aerts & Cormier, 2006). Legitimation refers to the characteristic of being legitimised by being placed within a framework through which something that is viewed as right and proper (Tyler, 2006: 376). Legitimacy is considered to be an intangible asset that determines the ability of a corporation to accumulate capital and personnel, which may influence its survival. Zimmerman & Zeitz, 2002) argue that there are strategic actions which can lead to legitimacy, and in turn legitimacy generates other resources and makes possible survival and growth (Zimmerman & Zeitz, 2002: 415). In addition, legitimacy has an important role in securing support for the corporation's activities. It shapes a reservoir of support. The companies which are viewed as legitimate are more highly insulated from unsystematic variations in their stock prices (Aerts & Cormier, 2006: 5).

Patten (1991, 1992) argues that social legitimacy is distinct from economic legitimacy but is not monitored in the marketplace but rather through public policy process. Scott (1995, cited in Aerts & Cormier, 2006) distinguishes between regulative, normative and cognitive legitimacy. According to Aerts and Cormier (2006) legitimacy that is treated in corporate environmental reporting literature is mainly of a normative legitimacy, which incorporates a significant regulatory component. Laws, regulations and formal rules constitute objective reference points and provide formalised and objective assessment parameters. The closer the company's behaviour aligns with the relevant norms and values, the higher its normative legitimacy (Aerts & Cormier, 2006:5).

Tilling (2004) argues that there are two major classes of legitimacy theory: institutional legitimacy which refers to the type of organisational structure (capitalism or government) that has gained acceptance from society as a whole; and organisational legitimacy (strategic legitimacy) which refers to companies seeking legitimisation by approval or avoidance of sanction from groups in society. Organisational legitimacy theory suggests that a company may occupy one of four phases in relation to its legitimacy: establishing legitimacy; maintaining legitimacy; extending legitimacy; and defending legitimacy. Tilling (2004) suggests that to develop legitimacy theory, the possibility that company may not successfully be able to defend its legitimacy and therefore start to lose legitimacy should be added to the model. This loss phase is most likely to be preceded by sustained media, NGO scrutiny, and government regulation and monitoring. During the loss phase, the company is most likely to increase its social and environmental disclosure in order to meet the specific threat. Suchman (1995) argues that legitimacy theory from an institutional viewpoint refers to companies, managers, performance measures and audience needs which are components within a larger institutionalised cultural framework that produce demands on each other.

Legitimacy theory is closely related to stakeholder theory. The demand for enhanced disclosure has been fuelled by the increasing popularity of the stakeholder theory that has resulted in an increased recognition that the interactions of a company are not limited to shareholders (Boesso & Kumar, 2007: 270).

Legitimacy theory comprises two basic ideas: companies need to legitimise their activities; and this legitimacy process provides some benefits for companies. The first element is consistent with the argument that CSD is linked to the presence of social pressure. In this context, it can be argued that the need for legitimacy is not equal for all companies due to the differences in both the degree of social pressure facing companies and the level of the response to this pressure. There are a number of factors which determine the degree of social pressure facing companies and the responses to this pressure. These factors are the potential determinants of CSD. The second element refers to the fact that the companies can expect to gain benefits from achieving legitimacy through CSD. Thus, it can be argued that the legitimacy theory provides a framework to explain both determinants and consequences of CSD.

#### **4.2. Suggested Framework of CSD Determinants**

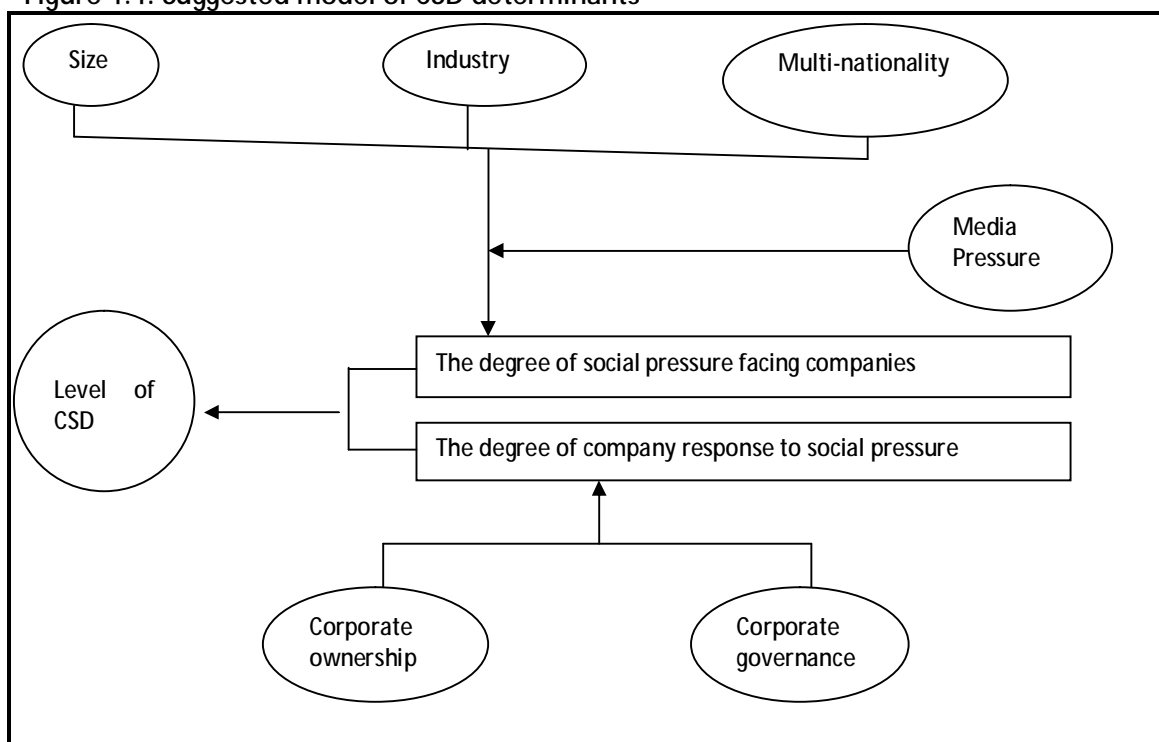
According to legitimacy theory the determinants of CSD are those factors which are related to social pressure. In this regard, two important questions come to mind: Are all companies facing the same degree of social pressure? Are all companies responding to this pressure to the same degree? In this context, it can be argued that both degree of social pressure and degree of companies' responsiveness differ across companies. Two types of factors determine these variations (see Figure 4.4).

The first type is factors that can determine the degree of social pressure facing companies. These factors include corporate characteristics (size, industry and degree of multi-nationality) and media pressure. It can be argued that large industrial companies which incorporate a

substantial degree of multi-national activities, and which face widespread media pressure garner greater attention from the broader society and consequently face the highest degree of social pressure. Therefore, according to legitimacy theory, these companies will need to legitimise their activities more strongly. Thus, a positive relationship between these factors and CSD is expected.

The second type of factor is the degree of company response to social pressure. These factors include corporate ownership and corporate governance. It can be argued that well-governed companies and those with a more dispersed ownership tend to respond positively to social pressure and provide greater levels of disclosure.

Figure 4.4: Suggested model of CSD determinants



#### 4.2.1 Corporate characteristics

Corporate characteristics are the predominant factors which examined as determinants of corporate disclosure in accounting literature. These characteristics are

#### 4.2.1.1 corporate size

Corporate size has the greater attention in literature as a determinant of disclosure, where an expected positive association between corporate size and corporate disclosure is always argued. Riahi-Belkaoui, (2001) argued that the reasons for positive association between corporate size and corporate disclosure include;

- The disclosure cost hypothesis which means decreasing costs associated with larger companies lead to more affordable disclosure,
- The transaction hypothesis which means that the incentives for private information acquisition are greater for larger companies leads to increasing disclosure with company size,
- The legal hypothesis which means that the value of damages in securities litigations are a function of company size which lead to increasing disclosure with larger companies.

Ho & Taylor, (2007) summarized the reasons for an association between disclosure and corporate size according to prior literature as the following:

- Disclosure costs may generally be lower for larger companies because economics of scale and the news media are more likely to report stories about larger companies and analysts are more likely to attend their meetings.
- Larger companies are more likely to have higher agency costs because higher information asymmetry between managers and share-holders, therefore larger companies are likely to disclose more information.
- Larger companies are generally more exposed to political attacks, demands for the exercise of social responsibility, greater regulation, and threat of nationalization.
- Smaller companies are more likely than larger companies to feel that increasing disclosure would be detrimental to their competitive position.

Concerning CSD and consistent with legitimacy theory, firm size is considered a determinant of CSD with larger companies being;

1. More visible target
2. Facing potentially higher political costs
3. Having more investors and other stakeholder looking out for information (Cormier, et al, 2005:8).

Cormier & Gordon, (2001) argued that legitimacy theory literature indicates that more attention will be paid to more visible or rely on political or social support companies, and it is hypothesized that larger companies have greater visibility and are more politically sensitive than smaller companies (Cormier & Gordon, 2001: 589). Also, Daub, (2007) stated that “experience to-date shows that a much larger share of the responsibility for global problems such as the pollution of the environment or social inequality is placed on the shoulders of large companies compared to small-to-medium-sized companies and, on balance, they are put under more pressure by their stakeholders” (Daub, 2007: 79). Husted & Allen, (2007) argued that the large companies have more need to design social strategy. Therefore, it can be argued that larger companies have greater attention from society and consequently will be object for more social pressure.

#### **4.2.1.2 industry effect**

Levels of disclosure in annual reports are not likely to be identical throughout all economic sectors (Comfferman & Cooke, 2002: 11). Ho & Taylor, (2007) argued that companies in the same industry tend to adopt similar disclosure practices to be in line with the peculiarities of their industry such as political vulnerability or degree of diversification. If a company does not follow industry-wide disclosure practices, then it may be interpreted by the market that the company is hiding bad news.( Ho & Taylor, 2007: 132). Prior literature presented some explanations for the association between voluntary disclosure and type of industry; the

existence of dominant companies that influence other companies to follow their practice, the presence of regulated industry, industry sensitivity and meeting the needs of international capital markets (Ghazali & Weetman, 2006).

Industries have different degrees of legitimacy based on a variety of actions and consequences derived from collective action of industry members. Industry level legitimacy is deterring according to the degree to which the operations and business processes of companies in a given industry and their products and services offered are accepted as appropriate and useful by broader publics. For example the oil industry's reputation has been damaged by highly visible oil spills, the chemical industry has been attacked in the past by environmental groups which may have reduced its legitimacy, and many well-established industries have a high level of legitimacy such as banking and medicine (Aerts & Cormier, 2006:10). Industry legitimacy affects the credibility of corporate environmental communication efforts. The credibility of corporate environmental communication efforts would be validated through a positive association between environmental performance and environmental communication content. (Aerts & Cormier, 2006:10). Husted & Allen, (2007) argued that the industry environment has a large effect on corporate adaptation for social strategy. They also indicated that one of the key indicators of managerial engagement in social strategy is how managers perceive the terrain of the competitive industry environment. Boutin-Dufresne & Sacaris (2004) argued that companies in a particular industry may be socially responsible simply by the nature of their activities. So, it can be argued that industry membership affects the public expectations concerning the impact of their activities on the community and consequently the need for legitimacy.

#### **4.2.1.3\_multi-nationality**

Zarzeski, (1996) argued that companies in the international marketplace provide higher levels of disclosure practices than their domestic counterparts. Depoers, (2000) argued that

the operating in a number of geographical areas including other countries increase the amount of information controlled by a company. Moreover companies are induced to comply with the usual disclosure practices in countries in which they operate. Riahi-Belkaoui, (2001) argued that, basically, there are two reasons why we might expect a positive association between disclosure and multinationality;

- The capital-need hypothesis which means that much of the impetus for voluntary disclosure by multinational companies surrounds the need to raise capital at the lowest possible cost. The pressure for information associated with global competition for capital manifests itself in the supplementary voluntary disclosures that multinational companies have been found to make.
- The multiple listing hypotheses which means that multinational companies are generally listed in more than one stock exchange. The companies with multiple listing are more likely to have greater number of shareholders who can make more monitoring costs, from the methods to reduce shareholders' monitoring costs and alleviate the moral hazards problem is through disclosure in corporate annual reports.

In context of CSD, Newson & Deegan, (2002) argued that, based on legitimacy theory, companies will respond to the expectations of relevant publics, and for multinational corporations, relevant publics is not restricted to home country but rather is more global orientation.

In the multinational environment companies are faced with potentially divergent home-country, host-country and international pressures that affect their self-regulation strategies (Muller, 2006:189). The international operations of company have substantial impact on the formulation and implementation of business ethical principles such as codes of conduct (Tulder & Kolk, 2001: 267).



In this context, it can be argued that geographical extension means that companies face more public needs and expectations. Consequently, the multinational companies are more likely to face greater social pressure.

#### **4.2.2 Media pressure**

The media is able to change people's perceptions of some issues. O'Donovan, (1997) show that senior executives of three large Australian companies believe that the media is able to shape society's perceptions and that CSD are used to correct misperceptions presented by the media. There are some studies shows that the media is able to influence people's perceptions concerning corporate reputation (Dutton & Dukerich, 1991; Elsbach & Sutton, 1992). Therefore, Hooghiemstra, (2000) argued that management will use the annual report to alleviate the negative media coverage.

From the view of point of legitimacy theory, it is indicated that differences in social disclosure are a systematic function of differences in public policy pressures, and these pressures can arise from cultural, political, or legal environments (Walden & Schwartz, 1997:127), while media pressure arguments could be seen as having an influence on the cultural environment (Patten, 2002 a:158). Also, Brown & Deegan, (1998) extend legitimacy theory by examining the role of media coverage in increasing public policy pressure which companies face; they provided evidence that higher level of print media coverage of environmental issues increase public policy pressure by driving public concerns, which in turn leads to greater environmental disclosure.

Therefore, it can be argued that more attention from the media on companies affect public perceptions and expectations concerning the impact of companies' activities in community and consequently the need for legitimacy.

### **4.2.3 Corporate governance**

The term corporate governance emerged in the 1970s as a frame work to explain contemporary corporate scandals, with the word increasing in usage and became an institutionalized field of activity for corporations (Ocasio & Joseph, 2005: 163). Roe, (2002) argued that a corporate governance system depends not only on laws and regulations, but also on the structure and operations of other institutions such as legal firms, the accounting profession, investment banks, and enforcement mechanisms. Issues of governance include corporate accountability, to whom and for what the company is responsible, and by whom and what standards it is to be governed (Worthy & Neuschel, 1983). Corporate governance contains the controls and procedures that exist to ensure that management acts in the interest of shareholders, to reduce the probability that management acts in its self-interest and takes actions that deviate from maximizing the value of the company, also, corporate governance mechanisms affect the information disclosed by the company to its shareholders (Kanagaretnam, et al, 2007: 498). The importance of effective governance has been recently addressed by a wave of well-publicized corporate scandals including Enron, Tyco, Worldcomm, and Global Crossing. In response, companies have taken steps to strengthen their governance not only by making boards more independent but also by explicitly charging directors to enhance corporate transparency through the adoption of higher disclosure standards (Hauswald & Marquez, 2006: 2).

It is argued that good corporate governance practices are accompanied with good disclosure practices, Patel & Dallas, (2002) argued that good corporate governance must include; a vigilant board of directors, adequately and timely disclosure of financial information, meaningful disclosure about the board and its management processes, and a transparent ownership structure identifying any conflicts of interests between managers, directors, shareholders, and other related parties. Ho & Wong, (2001) indicated that to improve

transparency and accountability, both the Stock Exchange of Hong Kong (SEHK) and Hong Kong Society of Accountants (HKSA) set up a corporate governance working group (CGWG) which recommended a number of practices including; separation of CEO and board chairman, a requirement of at least two non-executive directors, limitation of family members on the board to no more than 50%, and a requirement for two board committees (an audit committee and a remuneration committee) to be composed mainly of non-executive directors (Ho & Wong, 2001: 142). Forker, (1992) argued that adoption of internal control devices such as audit committees and non-executives directors, and separation of the roles of Chairman and Chief Executive, improve monitoring quality and reduce benefits from withholding information, and as a consequence the quality of disclosure is improved (Forker, 1992: 112). Chen, et al, (2006) argued that poor disclosure practice within a company is accompanied by poor corporate governance and improving transparency and disclosure practice will lead to better corporate governance.

In the context of CSD, it is argued that research into corporate governance has traditionally adopted an agency theory perspective, as it is mainly associated with the problem that companies need to show accountability to main stakeholders group, the shareholders. This shareholder-oriented perspective has been reflected in governance policy documents and codes of conduct (Brennan & Solomon, 2008: 886). More recently, the considerations of corporate governance have started to broaden, as there has been a change of emphasis away from the traditional shareholder-oriented approach towards a more stakeholder-oriented approach (Brennan & Solomon, 2008: 890). This broader approach has started to reflect in governance practices as the following (Brennan & Solomon, 2008: 890); (1) the Tyson Report (2003) in the UK, sought to broaden the board diversity by encouraging non-executive directors to be drawn from diverse backgrounds. (2) Two reports produced in South Africa (the King report 1994, 2002) draw attention to the need for companies to act responsibly

toward their diverse stakeholders. (3) International initiatives by OECD (OECD 1999, 2004) are making stakeholders concerns one of the primary principles of corporate governance best practices.

Mallin, et al, (2005) argued that corporate governance is concerned with both the internal aspects of the company, such as control and board structures, and external aspects such as the relationships with shareholders and stakeholders (Mallin, et al, 2005: 532). Ho & Wong, (2001) argued that corporate governance is thought as delineating rights and responsibilities of each group of company's stakeholders. Transparency is one major indicator of the standard of corporate governance in an economy (Ho & Wong, 2001: 142). In addition, it appears that the corporate governance system is related with ethical concerns; the Ethical Resource Centre 2003 considers ethics as a core concept in corporate governance and the struggle against corruption. Without high standards of corporate governance, businesses may under-perform, while strongly governed companies on a habitual system based on ethical values will perform strongly (Cassidy, 2003). Mallin, (2002) indicated to that ethical investment has now been increasingly perceived as a mainstream element of good corporate governance.

Karamanou & Vafeas, (2005) stated that “—well governed firms are more mindful of their obligation not to mislead shareholders” (Karamanou & Vafeas, 2005: 455). It can be argued that good corporate governance can play an important role in transferring community concerns to companies' attention, and consequently it is considered an important factor which can determine how companies react to society's needs and expectations.

Of governance practices, the structure of board of directors appear to be important mechanism that could influence corporate activities, the Board of Directors is considered an important determinant of corporate governance (Bahgat & Bolton, 2008: 258). Halme & Huse, (1997) argued that the role of the board may be linked to the companies' environmental attention; the environmental groups and corporate activists ask the board of directors to make

their companies behave in a socially acceptable manner as a board could operate as a sort of “superego” of their companies (Halme & Huse, 1997: 142). The board of directors may lead to greater monitoring and consequently to the high level of CSD, and the degree to which the board will affect CSD may also depend on the characteristics of this corporate governance mechanism. Thus, the characteristics of the board (board composition) can be seen as an indicator of corporate governance.

The structure of boards varies between countries and region of the world. But, the objectives of the board are the same, enhance stakeholder investment. The quality of board should have greater attention especially with the problems which have encountered companies all over the world. Corporate Governance codes require increasing non-executive members on the board and separation between CEO and chairman to improve the monitoring role of the board. Anderson & Reeb, (2004) argued that studies on board of directors effectiveness often focus on board composition classifying directors as either insiders (company’ employee) or outsider (non-employees).outside directors are often divided into; “those with existing or potential business ties to the firm (affiliates) and those members (independents) whose only tie to the firm is their directorship” (Anderson & Reeb, 2004: 2).

Karamanou & Vafeas, (2005) argued that as a response to recent financial disclosure scandals, US-congress and Securities and Exchange Commission (SEC), and major stock exchanges focused on corporate boards as primary method for enhancing the quality of financial disclosure (Karamanou & Vafeas, 2005: 454). Kanagaretnam, et al, (2007) argued that the substantial part of literature indicates that boards that do a more effective job of monitoring management enhance the quality and the frequency of information released by management, and this suggests that information asymmetry on average is lower for companies whose boards are more effective (Kanagaretnam, et al, 2007: 498). Effective board monitoring of management should not only increase the frequency of disclosures but

also enhance their quality (Kanagaretnam, et al, 2007: 499). Ajinkya, et al, (2005) and Karamanou & Vafeas, (2005) documented that companies with more effective boards issue more frequent earnings forecasts and these forecasts are more accurate.

Chen, (2006) argued that it is necessary to understand the common determinants of board structure which contribute to the correlation between independent directors and disclosure. These determinants are;

- External financing needs, which the studies referred to the existence of a relation between external financing needs and good corporate governance, and therefore independent board structure, also there is relation between external financing needs and level of voluntary disclosure. Therefore, it is likely that the correlation between board independence and disclosure could be due to the external financing needs.
- Overseas markets, which studies referred to existence relation between disclosure score and interaction with overseas markets, also, it is likely that the international exchanges and flow of information will lead to more board independence. Therefore, the interaction with overseas markets could determine both board independences and disclosure.

John & Senbet, (1998) argued that the effectiveness of a board in monitoring management is determined by its composition, independence and size. Board composition and board independence are related as board independence increases as the proportion of independent outside directors increases. Fama, (1980) argued that the higher the proportion of outside directors (directors not involved in the direct operation of the company), the greater monitoring ability over management. So, of the variables related to board of directors, three variables will be of interest; board size, proportion of non-executive directors, and presence of corporate responsibility committee as a board committee. The presence of non-executive directors has the most attention of researchers. Chen & Jaggi, (2000) argued that the inclusion

of non-executive directors on corporate boards started to receive increasing attention in the 1980s, which two main arguments are developed;

- Non-executive directors will provide advice to board on strategic decisions, which may improve the company's financial and economic performance.
- Non-executive directors improve monitoring of management decisions and activities by board.

Barako, et al, (2006) argued that non-executive directors consider a governance mechanism that enhances the board's capacity to ameliorate agency conflict between owners and managers which may occur in the decision to voluntarily disclose information in annual report. (Barako, et al, 2006: 111). Chen, (2006) indicated that in US, non-executive directors are shown to play more important role in monitoring managers than do inside board directors (Chen, 2006: 290). In addition to monitoring the quality of financial information, non-executive directors can play important role in determining and monitoring corporate voluntary disclosure (Ajinkya, et al, 2005: 344). Also, outside directors who are less aligned to management may be more inclined to encourage companies to disclose more information to outside investors, so, it is expected that the more outside directors on the board will be resulted in more voluntary disclosure (Eng & Mak, 2003: 327). Charitau, et al, (2007) suggests that the companies with more independent boards will be less likely to become delisted because independent directors are more likely to protect shareholder interests from managerial opportunism and increasing corporate performance (Charitau, et al, 2007: 252).

Cheng & Courtenay, (2006) argued that concerning outside or non-executive directors, it is necessary to distinguish between those who are affiliated with management through family or business relations (grey directors) and those who are truly independent (no relation with management ( Cheng & Courtenay, 2006: 264). Empirically, independent directors are found to impact a range of board decisions such as firing of non-performing CEO, resistance to

greenmail payments, and the negotiations of tender offers. (Cheng & Courtenay, 2006: 265). Anderson & Reeb, (2004) argued that independent directors can defend the minority shareholders by protecting their rights against large-shareholders opportunism; independent directors play an important role in balancing the interests of competing shareholders and they act as an influential governance mechanism in protecting outside shareholders from large shareholders expropriation (Anderson & Reeb, 2004: 2).

In the context of CSD, companies with higher levels of outside directors' representation tend to have higher CSP (Harrison & Freeman, 1999:480). Zahra & Stanton, (1988) argued that non-executive directors are likely to respond to concerns about honour and obligation and are more interested in satisfying the social responsibilities of the company. Outside directors may enhance the reputation and credibility of a company and help to establish and maintain its legitimacy (Johnson & Greening, 1999: 568). The role of non-executive directors in improving the monitoring of corporate boards suggests that the corporate board will become more responsive to investors, and inclusion of non-executive directors will improve the company's compliance with the disclosure requirements which in turn will improve the comprehensiveness and quality of disclosure (Chen & Jaggi, 2000: 286). Rose, (2007) argued that the new regulations requiring more independent directors are a major step in improving corporate ethics and social responsibility (Rose, 2007: 321). Therefore, it appears that presence of non-executive directors is linking between companies and outside environment.

#### **4.2.4 Corporate ownership**

Corporate ownership differs across the world. In some countries, companies are diffusely owned with managers firmly in control; in other countries companies have more concentrated ownership (Bebchuk & Roe, 1999). Developed countries such as the UK and USA are



characterized by dispersed ownership<sup>15</sup> in which institutional investors such as pension funds and mutual funds predominate (Chau & Gray, 2002: 249; Aguilera & Jackson, 2003: 448). In developing countries, ownership is heavily concentrated (La Porta, et al, 1998).

“The structure of ownership determines the level of monitoring and thereby the level of disclosure” (Eng & Mak, 2003: 326). Makhija & Patton, (2004) examined the impact of ownership structure on the extent of voluntary financial disclosure, they found that the extent of disclosure is positively related to investment fund ownership at low levels of fund ownership but is negatively related to investment fund ownership at high levels of ownership. Smith, et al, (2005) argue that ownership structure may influence the relationship between companies and stakeholders, and influence the level of quantity and quality of CSD (Smith, et al, 2005: 131).

In the context of CSD, the ownership structure may give rise to legitimacy gap (Haniffa & Cooke, 2005: 401). In companies with a dispersed ownership structure, opportunistic management behaviour and conflicts between agents and principles are more likely to occur (Tagesson, et al, 2009: 355). On the other hand, concentration of ownership makes accountability a minor issue and consequently companies have little incentive to voluntarily disclose information (Naser, et al, 2006: 17). It can be argued that ownership structure could have impact through two dimensions. Corporate governance addresses the agency problem and ownership diffusion increase this problem (Chen, 2001: 54), and consequently there is need for good governance practices which affect companies’ respond to social pressure. On the other hand, ownership structure can be important source of incentives for managers (Milgrom & Roberts, 1992), and also can influence managerial behaviour (Grossman & Hart,

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<sup>15</sup> Aguilera & Jackson (2003) suggested an explanation for dispersing ownership in the US based on a developed financial system and intercorporate networks with restricted strategic interfirm cooperation. In contrast, concentrated ownership (such as in Germany and Italy), is explained by a combination of factors: property rights favouring blockholders and the availability of bank-based finance. Also, La Porta et al. (1999) suggest an explanation for differences in ownership structure across the world based on the legal protection of minority shareholders.

1988). In this context, it can be argued that, in general, the more diffused ownership companies are more likely to need to deal with society's perception toward them in order to maintain good relations with various owners.

### 4.3. The Consequences of CSD

According to legitimacy theory, companies use CSD as a legitimacy tool. Tilling (2001) refers to the notion that more legitimate companies are the most likely to attract the resources necessary for survival. Therefore, researchers need to move away from trying to directly assess legitimacy and instead focus on measuring it in terms of the resources that relevant stakeholders provide. Actually, companies voluntarily provide social and environmental information to satisfy community needs, by identifying the degree of commitment of these companies to their social responsibilities. In this way, CSD is directed toward all sectors of society and, therefore, the consequences of this disclosure depend on its importance to each sector and the ability of this sector to influence companies (Figure 4.5).

Figure 4.5: expected consequences of CSD

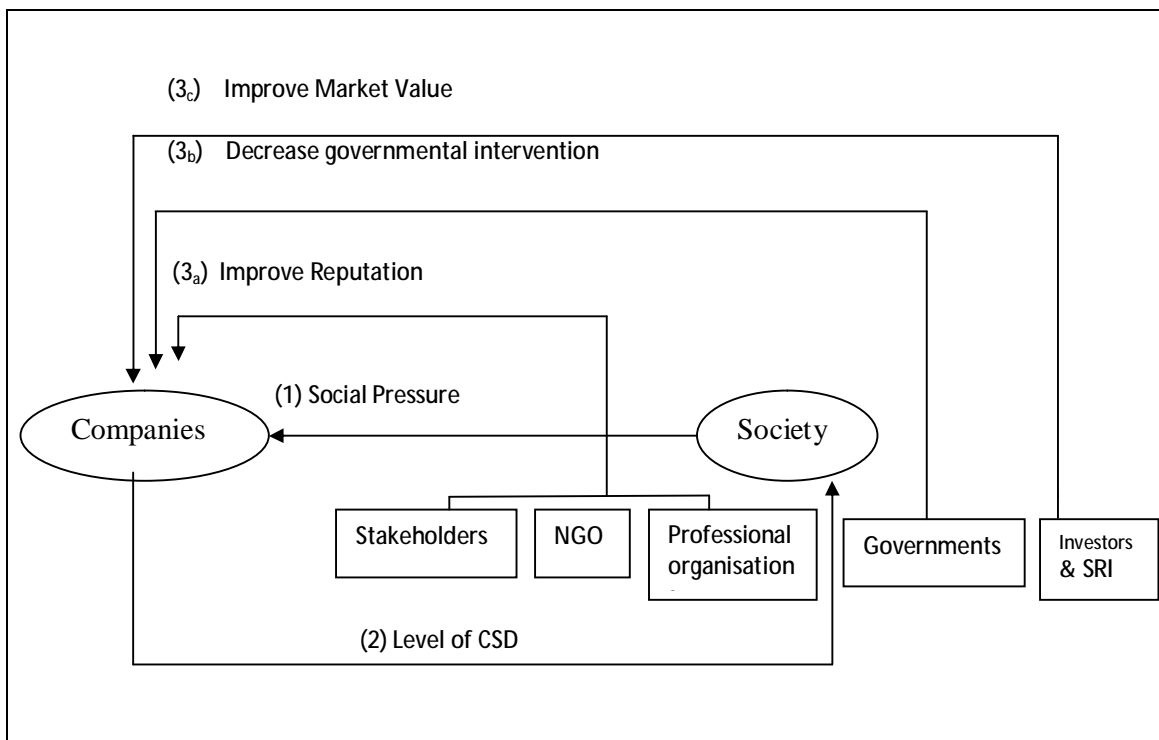


Figure 4.5 shows that companies provide disclosure for different sectors (stakeholders, NGOs, professional organisations, governments and investors) of society. It is argued that the consequences of CSD depend on the extent to which CSD appears to be important to each sector. In this context, it appears that stakeholders, NGOs and professional organisations are more interested in CSD than other parties, and these parties will react positively to higher levels of CSD by improving the companies' social reputation. While the importance of CSD for investors remains a disputed issue, (in addition to the low proportion of socially responsible investors in the financial market), this reflects the limited influence of this sector on companies and consequently indicates a limited financial impact for CSD. Governments also deliver CSD as a means to evaluate the status of companies' commitment to the concept of CSR. Governments can therefore determine the need to enact regulations that control the impact of companies' activities on the environment and the community as a whole. It can be expected then that higher CSD could alleviate government intervention in companies' activities, but it is difficult to examine this objective empirically. Therefore, the expected benefits of CSD, as a part of legitimacy strategy, are improving social reputation and improving the financial position.

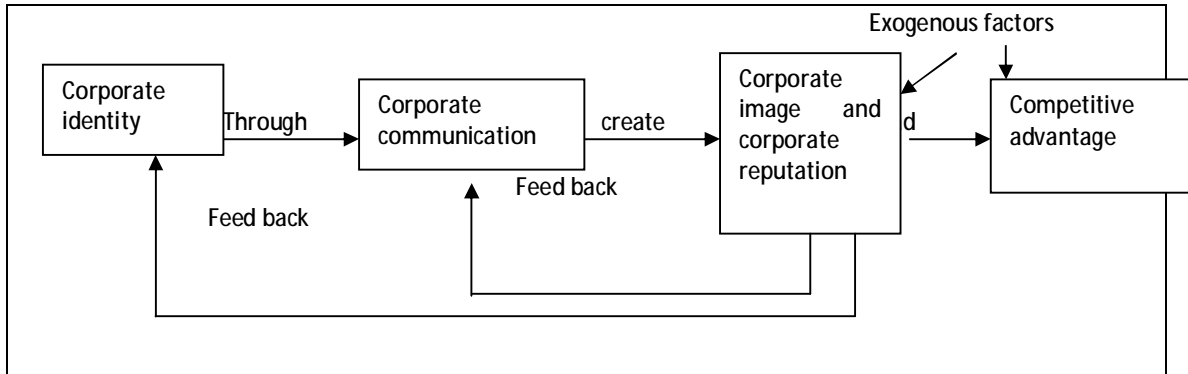
#### **4.3.1. Corporate social reputation**

According to legitimacy theory, corporate reputation is improved as a result of the legitimisation process. As Nguyen & Leblanc (2001) argue "corporate image and corporate reputation are considered as the global outcomes of the process of legitimisation" (Nguyen & Leblanc, 2001: 227). Reputation is a multi-dimensional concept that includes both financial and social aspects because companies' strategic actions and their outcomes are continually evaluated not only by the financial markets but also by all the stakeholders of the company (Espinosa & Trombetta, 2004: 2). Hemphill (2006) argues that corporate social reputation, reflecting CSR, requires an effective non-market strategy. Reputation can be conceptualised

with reference to both strategic management literature and a sociological perspective. From the first perspective, reputation can be considered as the company's attributes that reflect the extent to which stakeholders see the company as a good corporate citizen. From the second perspective, reputation is a subjective collective assessment of the trustworthiness and reliability of companies (Michelon, 2007: 7).

The expected relationship between CSD and corporate reputation can be theorised in the context of two ideas. First, corporate communication strategy plays an important role in constructing corporate reputation and therefore CSD is considered to be a part of the corporate communication strategy. Second, CSR activities positively add to corporate reputation, and therefore CSD is considered to be an interpretation of the CSR concept.

In the context of the first perspective, corporate reputation is considered to be a socially constructed concept which reflects the stakeholders' perceptions of how well company responses meet the demands and expectations of different stakeholders (Nguyen & Leblanc, 2001: 228). Corporate image involves popular perceptions of the company, which result from information transmitted via a company's communications. Lewis (2001) state that reputation is a product, at any particular moment, of a mix of behaviour, communication, and expectation. Gray & Balmer (1998) present an operational model for managing corporate reputation and image and suggest that companies gain their reputation or image through their communications (see following Figure). Espinosa & Trombetta (2004) argued that the communication strategy of a company is a crucial in determining its image, and quality of annual report disclosures is a natural element of a company communication strategy. Lewis (2003) argued that if companies are to engage the public in the 21<sup>st</sup> century, their communication must give social responsibility a bigger and more central role, where ethics and values will play more prominent role in consumer choices.



Source: Gray & Balmer, (1998: 696).

Concerning the second perspective, corporate reputation is affected by, among others, the quality of management, the company's financial soundness and its demonstration of social matters (Hooghiemstra, 2000: 58). Lewis (2003) argues that there are around six major facets of reputation which determine overall reputation: leadership; quality of products/services; financial performance; treatment of staff; environmental responsibility; and social responsibility. Quevedo-Puente et al (2007) argue that corporate social performance (CSP) and corporate reputation are two closely related concepts that include the relationship between the company and its stakeholders. These concepts are linked by company legitimization which is the process that translates past performance into future expectations. Legitimation transforms CSP, an objective flow variable, into corporate reputation, a perceptual stock variable. Hemphill (2006) argues that companies should design a socially responsible strategy to maintain or rebuild corporate reputation. This should operate on two levels of engagement:

- ¶ Interactive engagement which builds relationships with stakeholders; and
- ¶ Reactive engagement which is undertaken when evidence of improper business practices are investigated by federal authorities.

Therefore, the relationship between CSD and corporate reputation can be theoretically justified. Hooghiemstra (2000: 58) argues that narratives may contribute to the building of corporate reputation; therefore, it is assumed that companies try to influence their reputation

by engaging in CSD. Michelin (2007) argues that once a company has a strong reputation, CSD can be used to preserve the reputation (Michelon, 2007: 7).

#### **4.3.2. Market value**

A second consequence of CSD is the anticipated positive impact on corporate economic performance. Balabanis et al (1998) argue that both CSD and CSP are related to past, concurrent, and future financial performance. They suggest that CSD and CSP are inter-related, and also related to concurrent financial performance. Past financial performance is considered to be one of the determinants of CSD, while future financial performance is considered to be a result of CSD. Bird et al. (2007) argue that there are various ways in which expenditures on CSR activities may translate into increases in value of the company:

- ¶ Activities, such as energy efficiency, result in cost savings which can lead to increased profitability and supposedly an increase in the company's market valuation.
- ¶ Activities, such as improved product quality, can lead to reputational benefits which increase both profitability and market valuation in the long-term.
- ¶ Activities, such as voluntarily controlling pollution emissions, can alleviate future action by government and other regulatory bodies which could impose significant costs on the company (Bird, et al., 2007: 191).

In general, the impact of CSD on economic performance is reflected in a positive impact on the corporate market value. Theoretically, increased level of disclosure (in quantity and/or quality) reduces the information asymmetry between company and its shareholders or among potential buyers and sellers of its shares. This, in turn should reduce the discount at which company's shares are sold and hence lower the costs of issuing capital (Leuz & Verrecchia, 2000: 92). Plumlee et al (2008) argue that disclosure quality has direct and indirect effects on future cash flow. The indirect impact is through the impact on cost of capital, thereby changing the company's hurdle rate as it applies to future projects. Thus the potential positive

net present value of a project to a company changes according to its disclosure quality. The direct impact is because high quality disclosure may have an information value that provides more complete understanding of company behaviour (Plumlee, et al., 2008: 10). Teoh & Hwang (1991) indicate that investors may assess firm value based on whether or not news was disclosed on a particular date, and whether it was good or bad (Teoh & Hwang, 1991: 286). Rahman (2002) argues that corporate voluntary disclosure is one of the determinants of market value in line with internal and external corporate governance factors. In the context of CSD, Blacconiere & Patten (1994) argue that environmental disclosure is expected to moderate the negative market reaction to environmental accidents.

The demands for corporate responsibility information by the capital market come from seven main sources:

- ¶ SRI or responsible investment funds are responsible for much of the increased salience of corporate responsibility information.
- ¶ The increasing number of financial indices that incorporate environmental and social criteria, such as the Dow Jones sustainability indexes, the FTSE4Good and the Canadian-based Jantzi Social Index (JSI).
- ¶ Shareholders have been filing resolutions in escalating numbers, as well as increasingly supporting resolutions that demand disclosure of social and/or environmental performance information.
- ¶ Financial institutions are using their combined influence (i.e. the enormous sums of funds) to create pressure for improved performance and enhanced disclosure on specific issues.
- ¶ Oversight bodies and regulators in both Europe and North America have initiated measures to enhance the impact of existing disclosure requirements.
- ¶ New regulatory obligations related to disclosure are being introduced by a growing number of jurisdictions.

¶ A wide variety of awareness-raising initiatives have been developed from the UNP FI to various civil society initiatives to the ongoing NRTEE initiative (Stratos, 2004: 5-7).

It has been argued that the consequences of CSD depend on its importance to each sector of society. Thus, the economic consequences of CSD depend on its importance to financial markets (investors). In this context, it can be argued that the theoretical link between CSD and economic performance depends on two related ideas: (1) the increasing interest in the concept of CSR is accompanied by an increasing attention paid to social information, (2) the expected increase in the proportion of SRI in capital markets.

In relation to the first idea, the increasing interest in the concept of CSR has led to a number of studies to examine the potentially positive relationship between corporate social performance CSP and corporate financial performance. These studies, in most cases, indicate a positive association between the two reflecting the fact that investors take into account CSP information when they make investment decisions. Solomon & Solomon (2006) argue that there is growth in the integration of social and environmental issues in institutional investments in the UK (Solomon & Solomon, 2006: 565). However, Wahba (2008) argues that despite the growing expectation that social performance positively influences financial performance, to date these theories are inconclusive and empirical evidence is mixed (Wahba, 2008: 90). Shane & Spicer (1983) highlight that empirical studies have investigated the general question of whether or not investors have found social information useful for investment decisions by surveying institutional investors' demands for social information, and examining the stock market reaction to voluntary corporate social disclosure. They find it is not clear whether investors actually use corporate social information in making investment decisions (Shane & Spicer, 1983: 522). The organisation, Business in the Environment, (BiE, (1994) cited in Deegan & Rankin, 1997), examined the attitudes of British investment analysts on issues pertaining to the environment, and found that environmental issues have a



very low ranking in the analysts' priorities when they make their investment analyses. Henningsson (2008) finds that fund management groups do not feel any pressure to compromise social and environmental issues with their focus on corporate financial performance. Furthermore, other studies that examine the importance of social responsibility information for investors produced mixed results. Therefore, the hypothesis that social responsibility information is important for investment decisions is still disputed.

Within the argument that investors are interested in social and environmental information, another concern that arises is that investors may prefer external sources to obtain information on the social performance of companies. Solomon & Solomon (2006) argue that the weight of literature over the last 30 years seems to indicate that social, environmental and ethical information is considered decision-useful, but is inadequately disclosed (Solomon & Solomon, 2006: 567). Murray et al. (2006) argue that financial markets are offered a significant opportunity for international capitalism to reinvent itself in a form that is compatible with the exigencies of sustainability through new information, and in particular, information about social responsibility activities. Social and environmental disclosure through annual reports fulfils this role, but this disclosure is inadequate because it fails to offer a complete picture of a company's social responsibility activities (Murray et al., 2006: 229). The empirical results of a study by Dhaliwal et al. (2009) indicate that investors are actually interested in social performance, although at the same time, they are more interested in social performance indicators than CSR reporting. Therefore, it appears that if we accept the argument that investors are interested in social responsibility information, it is unclear to what extent CSD plays a role in this development.

With regard to the second idea (the expected increase in the proportion of SRI in capital markets), Hill et al. (2007) argue that SRI "demonstrated the long-term positive consequences of CSR on the market value of firms" (Hill et al., 2007: 172). The growing proportion of SRI

is a strong factor in the expected positive impact of social disclosure on economic performance. Rockness & Williams (1988) and Harte et al. (1991) detect a strong demand for social disclosure from ethical investors. Ullmann (1985) argues that ethical investors could pay a premium for shares of socially responsible companies. SRI has become a powerful engine for change leading to higher CSR standards (Valor et al, 2009: 1). Murray et al. (2006) argue that the growth in ethical investment funds reverses the traditional hypothesis that investors are exclusively interested in a financial appraisal of their investments. This growth indicates that social and environmental information may well offer an important source of direct input to ethical investors' decisions (Murray et al, 2006: 232). However, the influence of SRI is limited because as Valore et al. (2009: 2) indicate that despite SRI being on the rise, particularly in terms of the number of funds offered, retail SRI accounts form a small proportion of total retail funds. Therefore, the idea that SRI represents an important function in capital markets and can influence corporate financial positions is still disputed.

In summary, it is argued that according to legitimacy theory, companies use CSD as a tool to legitimise their activities in the face of social pressure. Therefore, the primary consequence of CSD is to improve corporate social reputation; however, there is no clear theoretical link between CSD and financial performance.

## **5. SUMMARY**

This chapter presents a theoretical framework that explains CSD. It suggests that, according to political economy theory, the interaction between socio-economic factors (the economic level of attainment, the political system, culture and level of corporate governance) in each country provides an explanation as to the level of CSD in that country.

At the company level, the framework, using legitimacy theory, explains that the level of CSD in each company is a result of interaction between two types of factors: factors that

determine the level of social pressure on the company (corporate characteristics, media pressure and degree of multi-national activities), and factors that determine the company's response to social pressure (corporate ownership and corporate governance). In addition, this disclosure provides advantages for companies by improving their social reputation. The next chapter clarifies the method used to measure CSD.

# Chapter 5

METHODOLOGY

## Chapter 5

### Methodology

#### 1. INTRODUCTION

The previous chapter presented a theoretical framework that identifies the determinants and consequences of corporate social responsibility disclosure (CSD). To examine this framework, three empirical models are used. The first is a model to examine the determinants of social disclosure at the country level, the second is a model to examine the determinants of social disclosure at the company level, and the third is a model to examine the consequences of CSD. Each model includes several variables which are measured through several databases.<sup>16</sup> The focal point of this framework is CSD. The measurement of CSD, in particular in annual reports, is controversial according to previous studies. As a result, this chapter focuses on clarifying ways of measuring CSD.

Previous studies suffer from limitations which this study attempts to avoid by analysing, not only the quantity but also the quality of CSD as a whole (i.e. not only environmental disclosure), in both annual and stand-alone reports (i.e. not only annual reports). The following variables are used to measure CSD:

- ¶ Quantity of disclosure in both annual and, if available, stand-alone reports (whatever the name of the report be it corporate social responsibility report, corporate responsibility report, corporate sustainability report, environmental report, social and environmental report, corporate citizenship, etc.)
- ¶ Quality of disclosure in both annual and stand-alone reports.

The objectives of this chapter are to:

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<sup>16</sup> The explanation for these variables and the method of measurement will be discussed in the chapter pertinent to each model.

- ¶ Explain the measurement of CSD, in particular in annual reports; and
- ¶ Present a pilot study that examines the validity of the measures.

The next two sections explain the measurement of quantity and quality of social disclosure respectively. Section 4 defines the sample and section 5 presents a pilot study which is conducted to ensure the relevance of measurement procedures to the selected sample. Last two sections explain positionality and research ethics.

## **2. THE QUANTITY OF CSD**

This section is related to measuring the quantity of CSD in both annual and stand-alone reports. The accurate measurement of disclosure is a key factor in ensuring the accuracy of the results of these studies. A large part of this chapter will therefore focus on the measurement of social disclosure in annual reports.

### **2.1 The Quantity of CSD in Annual Report**

The research method commonly used in assessing the quantity of CSD is content analysis. Content analysis can be defined as “a research technique for making replicable and valid inferences from data according to their context” (Krippendorff, 1980: 21). The main characteristic in content analysis is that data are coded and measured in a reliable and systematic manner (Krippendorff, 1980). The content analysis technique requires determining the documents used in analysis (annual reports), define CSD and its categories, the unit of analysis, and the reliability of the content analysis technique.

#### **2.1.1 Annual reports**

Annual reports are formal public documents produced by companies in response to the mandatory corporate reporting requirements existing in most western economies (Santon & Santon, 2002:478). Daub, (2007) stated that the annual report is sometimes referred to as a company business card which reflects that it provide readers with a comprehensive picture of

the publishing organization (Daub, 2007: 75). The annual reports are commonly divided into two sections; one for statutory required financial statements, and other for non-statutory matters. It is observed that content changes have been partly mandatory, partly voluntary. In the UK, the mandatory content increased rapidly between 1970 and 1990 as a result of changing demands from several regulatory bodies. Also, voluntary disclosure increased as the corporate report moved towards being a public relations document (Santon & Santon, 2002:479). Tsang, (2001) argued that compared with one or two decades ago, today, annual reports are more professional with colourful graphs and diagrams, fancy designs and exotic paper. There is growing realization that annual reports have a disclosure function which can serve crucial public relations function. White & Hanson, (2002) present a justification for extensive use of annual report by researchers “for no other medium offers the same blend of consistency, accessibility wide applicability. No other medium yields the same access to corporate communication with lay audiences” (White & Hanson, 2002:455).

The majority of literature uses the annual report as the principle focus of disclosure. The literature presents some justifications for this as the following:

- Annual reports provide a high degree of credibility to information disclosed within them (Tilt, 1994).
- The annual report is a statutory document and produced regularly, and it represents what is probably the most important document which companies use in construction of its own social imagery (Hines, 1988).
- Annual reports are the most accessible source of information for listed companies, in hard copies and electronically (Yusoff & Lehman, 2005).
- The financial image of a company is critical in terms of how companies are seen and judged, the social and environmental factors frequently will produce conflict with financial ambitions of the company and its owners, so the presentation of the financial information

and social and environmental information within the same report becomes an important element in demonstrating how the company reconciles these matters (Gray, et al, 1995 b: 82).

### **2.1.2 Define CSD and its categories**

The measurement of CSD in annual reports requires a clear definition for CSD and its categories. The literature identifies four major themes for corporate social responsibility; natural environment, employees, community, and customers (Gray, et al, 1995 b: 81). But Gray, et al, (1995 b) identified four problems:

- There will be some elements which seem instinctively to be social responsibility but fall outside these categories, so it may be other category succeed in capturing such elements.
- These categories fail in any separation of voluntary versus regulated/mandated disclosure.
- For comparability objective, it is advisable to follow the Ernst and Ernst subcategories, but many of Ernst and Ernst categories would stay at or near zero for UK.
- Changes over time will make previously marginal categories too narrow and cumbersome (Gray, et al, 1995 b: 81).

Based on some studies (Gray, et al, 1995 b; Hackston & Milne, 1996; Hall, 2002; Newson & Deegan, 2002; Williams, 1999; Williams & Pei, 1999; Deegan, et al, 2002) the CSD categories<sup>17</sup> can be determined as the following:

#### **1- Environment**

##### **1-1 Environmental pollution**

1. Pollution control
2. compliance with pollution laws and regulations
3. Prevention or repair environmental damage
4. Conservation of natural resources,
5. Using recycled materials
6. Efficiently using materials resources in the manufacturing process

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<sup>17</sup> This index is adopted from Hackston & Milne, 1996, which it is the most comprehensive index in literature and it is applied in New Zealand which is a developed country, and is used to explain the determinants of CSD. Also, index of Gray, et al, 1995 b, was used because it is similar to the previous and applied in UK, but it was used to construct social disclosure database.



- 7. Supporting anti-litter campaigns
- 8. Receiving award
- 9. Preventing waste
- 1-2 Aesthetics
  - 10. Designing facilities harmonious with the environment
  - 11. Contributions to beautify the environment
  - 12. Restoring historical buildings/structures
- 1-3 Other
  - 13. Undertaking environmental studies
  - 14. Wildlife conservation
- 2- Energy
  - 15. Conservation of energy
  - 16. Utilizing waste materials for energy production
  - 17. Disclosing increased energy efficiency of products
  - 18. Research aimed at improving energy efficiency of products
  - 19. Receiving awards
  - 20. Voicing the company's concern about the energy shortage
  - 21. energy policies
- 3- Employee
  - 3-1 Employee health and safety
    - 22. Reducing hazards in the work environment
    - 23. Accident statistics
    - 24. Complying with health and safety standards and regulations
    - 25. Receiving a safety award
    - 26. Establishing a safety department/committee/policy
    - 27. Conducting research to improve work safety
    - 28. Provide low cost health care for employees
  - 3-2 Employment of minorities or women
    - 29. Recruiting or employing racial minorities and/or women
    - 30. Establishing goals for minority representation in the workforce
    - 31. Programme for the advancement of minorities in the workplace
    - 32. Employment of other special interest groups,
    - 33. Disclosures about internal advancement statistics
  - 3-3 Employee training
    - 34. Training employees through in-house programmes
    - 35. Financial assistance
    - 36. Establishment of trainee centres
  - 3-4 Employee assistance/benefits
    - 37. Providing assistance or guidance to employees
    - 38. Providing staff accommodation/
    - 39. Providing recreational activities/facilities
  - 3-5 Employee remuneration
    - 40. Providing amount and/or percentage figures for salaries, wages, and pay taxes superannuation
    - 41. Remuneration policies

### 3-6 Employee profiles

- 42. Number of employees
- 43. Providing the disposition of staff-
- 44. Providing statistics on the number of staff ,
- 45. Providing per employee statistics,
- 46. Providing information on the qualifications of employees recruited

### 3-7 Employee share purchase schemes

- 47. a share purchase scheme or pension programme
- 48. Providing any other profit sharing schemes

### 3-8 Employee morale

- 49. improve job satisfaction and employee motivation
- 50. stability of the workers' jobs
- 51. awards for effective communication with employees
- 52. communication with employees

### 3-9 Industrial relations

- 53. company's relationship with trade unions
- 54. industrial action

### 3-10 Other

- 55. Improving working conditions-
- 56. re-organization of the company
- 57. statistics on employee turnover

## 4- Products

### 4-1 Product development

- 58. developments in company's products,
- 59. development expenditure
- 60. Information on any research projects set up by the company to improve its product in any way

### 4-2 Product safety

- 61. products safety standards
- 62. safety research
- 63. improve procedures of processing and preparation of products

### 4-3 Product quality

- 64. quality of the company's products
- 65. Verifiable information

## 5- Community development

- 66. Donations
- 67. Summer or part-time employment of students
- 68. Sponsoring public health projects
- 69. Aiding medical research
- 70. Sponsoring educational conferences,
- 71. Funding scholarship programmes or activities
- 72. Supporting national pride/government sponsored campaigns
- 73. Other special community related activities,

## 6- Customers

## 7- Value added statement

#### 8- Others

- 74. Corporate objectives/policies;
- 75. Other;

The above definition of CSD categories is just an initial definition that will be tested to determine its relevance for companies in the sample. This definition will be tested in the pilot study in last section of this chapter.

### **2.1.3 Unit of analysis**

The methods used in content analysis' studies to quantify disclosure are number of characters, words, sentences, pages, and proportion of volume of CSD to total disclosure. The literature does not provide a theoretical justification for choice of any one of these measures (Williams, 1999).

The measurement of quantity of disclosure in terms of words was justified by maintaining that volume of disclosure can thereby be recorded in greater detail (Deegan & Gordon, 1996). Zeghal & Ahmed, (1990) indicated that words are the smallest unit of measurement and can be expected to provide the maximum strength to the study in assessing disclosure quantity. The criticism of using words as a basis for measurement are, it is an ambiguous measure, and using numbers of words leaves the researchers pondering which individual word is a CSD and which is not, therefore, the possibility remains that disagreement between different coders could be quite serious (Hackston & Milne, 1996:84). Milne & Adler, (1999) argued that individual word has no meaning to provide a sound basis for coding CSD without a sentence or sentences for context.

The measurement in terms of sentences was justified in that; (1) sentences can be counted with more accuracy than words, (2) sentences are used to convey meaning whereas discerning the meaning of individual words in isolation is problematic, (3) sentences overcome the problem of allocation of portions of pages and remove the need to account for the number of

words, (4) in addition, sentences are a more natural unit of written English to count than words (Hackston & Milne, 1996:84-85). Walden & Schwartz, (1997) argued that a sentence consider a conventional unit of speech and writing, while portion of pages is not. Using sentences as a unit of measurement seems to ignore that the differences in use of grammar may result in conveying the same message by using a similar number of words and similar amount of space but using a different number of sentences (Unerman, 2000:675). Also, Milne & Adler, (1999) argued that measurement in terms of sentences give similar results to measurement of volume in terms of proportion of the page.

The criticism of using pages to measurement is that print sizes, column sizes, and pages sizes may differ from annual report to another (Ng, 1985). Milne & Adler, (1999) suggested that using areas of pages as a basis for measure CSD adds unnecessary reliability. Therefore, Gray, et al, 1995b; Unerman, 2000, measured CSD using portion of pages use a grid with 25 rows of equal height and four columns of equal width was laid across each CSR disclosure, with volume being counted as the number of cells on the grid taken up by disclosure and making allowance for any blank parts of a page. Also, Newson & Deegan, (2002) measure the CSD to the nearest hundredth of a page using a transparent plastic A4 sheet divided into a grid of 100 rectangles, each side is divided into 10 after allowing for a standard margin of approximately 25 mm. The transparent sheet is placed over sections of highlighted text, pictures, or captions and the number of hundredths assessed. No allowance was made for typeface or margins between blocks of text; such technique provides similar results to measurement by individual sentences.

A strong criticism against measuring CSD in terms of number of characters, words or sentences is that this will be result ignoring any non-narrative disclosure such as photographs or charts which consider effective methods of communication (Unerman, 2000:675). It is argued that photographs are sometimes more powerful tool than narrative disclosure for

stakeholder who does not have either time or inclination to read every word in the annual report (Unerman, 2000:675).

For the purpose of this study, CSD quantity in annual report will be measured by an alternative three units: number of sentences, number of pages, and percentage of pages. The objectives of using different three units are: (1) using the number of sentences as an appropriate indicator to quantity of CSD in annual reports in order to analyse the quantity of CSD in annual reports only; (2) using the number of pages in annual reports in order to measure total quantity of CSD as a total number of pages in both annual and stand-alone reports; (3) examining the results that derived from three different units to indicate if they provide similar results or not.

#### **2.1.4 Reliability of content analysis**

The main characteristic of content analysis is that data should be tested to prove that they are objective, systematic, and reliable (Krippendorff, 1980). Reliability in content analysis involves two separate but related issues; (Milne & Adler, 1999)

- Verify that coded data is in fact reliable. The common ways in achieving this objective is demonstrating the use of multiple coders and reporting either the discrepancies between the coders are few, or the discrepancies have been re-analyzed and the differences resolved. Alternatively, researchers can demonstrate that a single coder has undergone a sufficient period of training.
- The reliability associated with the coding instruments themselves. By establishing the reliability of particular tool/method across a wide range of data sets and coders, content analysts can reduce the need for the costly use of multiple coders (Milne & Adler, 1999).

Newson & Deegan, (2002) using two types of reliability test for coding CSD; first, assess the proportion of coding errors between coders (inter-coder reliability or reproducibility). Second,

assess the performance of coder against a predetermined standard (ex post coding decisions) to determine coder accuracy.

Krippendorff, (1980) indicated to three types of content analysis' reliability;

- Stability, sometimes called intra-coder reliability, refer to the ability of a judge to code data the same way over time. If annual reports analysed by a coder and then analysed again after three weeks, and the coding was the same each time then the stability of content analysis would be perfect.
- Reproducibility, sometimes called inter-coder reliability, refer to that the same coding achieved when various coder are involved. The inter-coder reliability use to measure reproducibility and involves assessing the proportion of coding errors between various coders.
- Accuracy, refer to assessing coding performance against a predetermined standards set by a panel of experts or known from previous experiments and studies.

For the purpose of this study, the validity of disclosure measurement will be evaluated at two stages: first, the inter-coder reliability will be determined through a pilot study. In a pilot study a sample of annual reports of companies (for 2005) will be evaluated by two coders (researcher and independent coder). Then inter-coder reliability will be measured through some statistical methods. Also, the differences between two coders will be discussed, and then the annual reports of 2006 will be evaluated by two coders. At the second stage, the validity of the measurement will be measured after obtaining the results.

## **2.2 The Quantity of CSD in Stand-Alone Reports**

Roberts, (1991) stated that the exclusive focus on annual reports may provide an incomplete picture (to some extent) of corporate disclosure practices (Roberts, 1991:61). Also, Zeghal & Ahmed, (1990) indicated that annual reports are not the only medium can companies use to disclose their socially responsible behaviour. Unerman, (2000) stated that "Studies which only

examine annual reports risk underestimating the volume of CSR companies engage in" (Unerman, 2000:674). So, there are some studies which used documents other than annual reports; Guthrie & Parker, (1989) used, with annual report, half yearly produced report of PHB company, Zeghal & Ahmed, (1990) used, with annual report, corporate advertisements and brochures, Harte & Owen, (1991) used, with annual report, environmental report, Simmons & Neu, (1996) used ,with annual report, press reports regarding environmental fines, while, Ince, (1997) do not use annual report in his study which examined the content of environmental policy statement, Ho & Taylor, (2007) examined triple bottom-line reporting (TBL) in annual report, stand-alone report, and special website reports, Branco & Rodrigues, (2008) examined CSD in both annual reports and web sites.

With a variety of means which can used to disclose CSR information, Unerman, (2000) indicated that any study must limit the range of documents included for two main reasons:

- Large companies might publish a large number of documents each year; it risks a researcher being overwhelmed by the number of documents.
- Many of documents might not have been placed in a corporate archive, so it is difficult to ensure completeness of data.

Therefore, it appears that, on the one hand, depending on annual reports only may provide an incomplete picture, and on the other hand, examining all documents is illogical, the quantity of CSD will be measured through two documents: annual report and a stand-alone report.

### **3. QUALITY OF CSD**

Measuring the volume of information only is not adequate for understanding the phenomenon of CSD. So, to better understand the phenomenon, the quality of CSD will be taken into account. Although the measurement of disclosure quality is difficult and methods often lack

objectivity, the measurement of disclosure quantity must be paralleled by measuring the quality so that we understand more clearly the level of corporate social disclosure.

### **3.1 The Quality of Disclosure in Annual Reports**

The measurement of disclosure quality is a disputed topic in academic literature. The common method used in literature to measure the quality of CSD is rank disclosure information, according to its type or according to predetermined factors. The literature used various ranking systems to measure the quality of CSD in annual reports. These ranking systems presented different point scales for assessing the quality of social disclosure in annual reports. The point scale relied on using several points: Robertson & Nicholson (1996) and Cormier et al. (2005) suggested a 3-point scale system, Gamble et al. (1995) and Raar (2002) used a 7-point scale and Van Staden & Hooks (2007) developed a 5-point scale to assess the quality of environmental disclosure. Generally, these different ranking systems depend on the distinction between general disclosure and disclosure that reports specific activities. It can be argued that using a ranking system that consists of many points could reduce reliability in the measurement, as an increasing number of points leads to a greater opportunity for the existence of a subjective judgement of measurement. It would seem therefore, that developing a ranking system that depends on the lowest possible number of points, could achieve reliable results.

The search for a more reliable ranking system raises an important question: What is the meaning of disclosure quality? The concept of quality is a controversial issue in academic literature and in contemporary philosophy. The business definition of quality is that the quality of product or service indicates the perception of the degree to which the product or service meets users' expectations. ISO 9000 defines quality as "degree to which a set of inherent characteristics fulfils requirements". In this context, it can be argued that disclosure quality reflects whether this disclosure meets users' needs. The question that then arises is: What are the users' needs? In this regard, it can be argued that obtaining specific information represents



the users' main requirements from disclosure. Consequently, CSD quality can be determined according to whether this disclosure provides clear, specific information or not. The question now is: Which type of disclosure reflects specific information? Al-Tuwajiri et al. (2004) proposed qualitative disclosure measures which denoted weights for different disclosure items, based on the perceived importance of each item to various user categories: weight 3 to quantitative disclosure, weight 2 to non-quantitative disclosure that reports specific activities, and weight 1 to common qualitative disclosure. Cormier et al. (2005) used the rating based on the scores of one to three: three for items described in quantitative terms, two when an item is described specifically and one for an item discussed in general terms. Quantified disclosures are more likely to represent actual activities, and represent the important and distinguishing differences between competitors (Toms, 2002: 270). Quantitative disclosure is one of the attributes used in social disclosure quality (Hammond & Miles, 2004: 69-71). Brammer & Pavelin (2006) argued that disclosure quality refers to whether the disclosure reports specific actions, quantifies environmental impacts, sets formal targets and is subject to external audit (Brammer & Pavelin, 2006:1169-1170). Toms, 2002, designed a pilot questionnaire survey sent to fund managers and analysts. The results showed that the low rating given to "non-quantified information" and the high rating for "externally monitored environmental report". The rating from high rating to low rating was as follows:

1. Externally monitored environmental report
2. Quantified environmental performance in annual report
3. Specified policies
4. Publication of an environmental policy
5. Volume of information available in reports
6. Non-quantified information.

Therefore, a measurement based on a 2-point scale system can be suggested to assess the quality of social disclosure in annual reports as follows:

1, if disclosure is quantitative disclosure, graphs or narrative disclosure which reports the policies and activities of a company concerning its social responsibility.

0, otherwise

The following table provide some examples for the quality rating score

Table 5.1: Examples for the quality rating score

Rating scale	example
0	<p>"The Group's research and development activities are focused on developing new products and new processes, as well as maintaining and improving the quality of existing products."<sup>18</sup></p> <p>"The group is committed to the fair and equitable treatment of all its employees irrespective of gender, race, age, disability or sexual orientation. Policies have been implemented across the group to ensure that this commitment is acted on in practice"<sup>19</sup></p> <p>"As all our businesses have an objective of continuous improvement, our environmental initiatives focus on minimizing waste generation, preventing pollution and reducing energy consumption"<sup>20</sup></p> <p>"During the year accessibility to, and visibility of our customer relations team was increased to ensure that the group is equipped with the best possible service to respond to customers' needs"<sup>21</sup></p> <p>"Going forward, we have developed a new community involvement policy, encouraging our employees to form long-term relationships with local charities and focus both volunteering and fundraising on benefitting the local community. We believe that these efforts will now have a significant impact and will build on the benefits we are already providing through the group's contracts with local authorities"<sup>22</sup></p> <p>"it is therefore very pleasing to note that, for the sixth consecutive year, we are able to report an overall improvement in our SHE performance. In addition, good progress has been made towards achieving our long term targets for sustainable development"<sup>23</sup></p> <p>"The group continues to recognize that a well run business balances the expectations of all key stakeholders: our customers, shareholders, employees and the communities in which we live and work. This is reflected in our commitment to responsible corporate behavior and the principles of global compact"<sup>24</sup></p>
1	<p>"At the Johnson Matthey Technology Centre we are already designing exhaust after treatment systems for 2010 and beyond, when conventional three-way gasoline and diesel catalysts will no longer meet the demands of new engine technologies. The experience that we have gained over 30</p>

<sup>18</sup> British American tobacco. Annual report, 2005

<sup>19</sup> WS Atkins plc, annual report, 2005

<sup>20</sup> The weir group plc, annual report, 2006

<sup>21</sup> Brit insurance holdings plc, annual report, 2006

<sup>22</sup> Mouchel parkman, annual report, 2006

<sup>23</sup> Yule Catto & Co plc, annual report, 2006

<sup>24</sup> Abbot group plc, annual report, 2005

years means that we have an extensive knowledge base on which to build our designs. By inputting performance measurements into mathematical models, we are even able to predict how potential catalysts would perform on vehicles that do not yet exist. Among the technologies we are developing”<sup>25</sup>

“in 2003 the group undertook an initiative to minimize the environmental impact of its single largest volume-packaging component, namely our plastic delivery sacks. After 14 months of trials the company re-engineered the base material to reduce the gauge of the material without loss of pack strength. The result of this project was to reduce the plastic tonnage entering the waste stream by 62 tonnes annually (a reduction of 10.3%). A comprehensive environmental risk assessment, undertaken at the same time, measured improvements achieved in the control of environmental impacts in the areas of packaging, paper, print, energy consumption and waste.”<sup>26</sup>

“We are pleased to launch our group chief executive’ annual CR awards in 2006. Awards were presented in each of our five critical CR areas in April 2007 and included a financial contribution to the winning contract or individual plus a financial contribution to a charity of the winner’s choice”<sup>27</sup>

““At our scheme in Formby our team came to the aid of a local charitable trust which occupies a building next door to the site. The local site team arranged with the trust to redecorate the exterior of the building with graffiti proof paint”<sup>28</sup>

“no charitable or political donations were made during the year”<sup>29</sup>

“Building on the 2004 launch of our VT young graduate scheme, the group has designed a comprehensive graduate development programme”<sup>30</sup>

“Barclays committed £35.3m in support of the community in the UK (2004: £29.5m) and £3.8m was committed in international support (2004: £2.5m). UK commitment includes £16.7m of charitable donations (2004: £11.2m).”<sup>31</sup>

“Since 2003 our total employee costs, which consist of salaries, plus all other costs associated with employment such as bonuses, pension, healthcare etc, have consistently reduced as a percentage of sales from 39.6% in 2003 to 31.7% for the second half of 2006. Our medium term target is to improve that ratio to 30%”<sup>32</sup>

The quality score will be measured by evaluate each sentence in social disclosure according to previous rating, then calculate the average score (total score / number of sentences).

### 3.2 The Quality of CSD in Stand-Alone Reports

There is a lack of interest in studying quality of disclosure in stand-alone reports. Actually, using content analysis to measure quality of disclosure in stand-alone reports is considered a very difficult and lengthy task due to a large number of pages in each report. Therefore, we can use an indicator to the quality of a stand-alone report based on some characteristics of these

<sup>25</sup> Johnson matthey. Annual report, 2005

<sup>26</sup> N Brown grouo, report and accounts 2006

<sup>27</sup> Alfred McAlpine plc, annual report, 2006

<sup>28</sup> McCarthy & Stone plc, annual report, 2005

<sup>29</sup> The Scottish Investment Trust plc, annual report, 2006

<sup>30</sup> VT Group plc, annual report, 2006

<sup>31</sup> Barclays. Annual report, 2005

<sup>32</sup> The Morgan Crucible company plc, annual report, 2006

reports. The relevant question is what are the characteristics that reflect the quality of these reports? In this concern, it can be argued that using reporting guidelines and reviewing reports by an independent auditor are considered as important characteristics of good quality reports. Frankental, (2001) argued that corporate responsibility reports are public relations, and can have real substance if they are benchmarked and audited. So, the researcher uses as an indicator to the quality of stand-alone reports based on two points: first, whether this report is prepared based on some reporting guidelines such as GRI or AAA, and second, whether this report is audited by an independent auditor. The absence of reporting guidelines could create a confusion which might make it difficult for readers to identify what to look for in corporate responsibility reports, and without auditing CSR reports, the companies could make exaggerated claims that may be unverifiable. This will limit the usefulness of corporate responsibility reports (Idowu & Towler, 2004: 434). Reporting guidelines provide accepted framework of disclosure information that can be of interest for users. Reporting guidelines are considered useful because they provide a direct guidance on what and how to report. The GRI provide a holistic framework that addresses broad performance as to how a company is reporting to stakeholders. Also, using reporting guidelines provides a method to increased comparability. Mio, (2009) presented approach to measure quality of sustainability, environmental and social reports based on comparing the degree of application of principles expressed by the GRI-G3 guidelines.

Concerning assurance, the AA1000 defines assurance as “an evaluation method that uses a specified set of principles and standards to assess the quality of a reporting organisation’s subject matter, such as reports, an the organisation’s related systems, processes and competencies that underpin its performance. Assurance includes the communication of the results of this evaluation to provide credibility to the subject matter for its users.” ([www.accountability.org.uk](http://www.accountability.org.uk)). Credible data can be viewed as a central part of corporate

responsibility, and more stakeholders are demanding CSR reports that truly represent what the companies have achieved and what they will achieve in the future, so the third-party assurance of CSR reports is presented at the beginning of the 1990s (Park & Brorson, 2005: 1096). Independent assurance must be shown to add more value and the growing demands for more robust disclosure will require a significant innovation in assurance standards (Accountability, csrnetwork, 2004: 9). Aw, et al, 2009, examine whether the assurance of voluntary environmental disclosure in sustainability reports, annual reports, and corporate websites improves the quality of this disclosure. The results show that the quality of voluntary environmental disclosure is indeed higher for reporting companies with environmental assurance than those without, and the quality is no different whether assurance is from accountants or consultant assurers. The benefits of assurance according to the European Federation of accountants are; credibility adds to the quality of information, favourable publicity, and demonstrates compliance. Solomon (2000) conducted a survey to identify some aspects of environmental reporting and compare them with financial reporting, and one of the results suggests that verification is necessary for environmental reporting as for financial reporting. Hammond & Miles (2004) suggested some attributes to social disclosure quality, and from these attributes, third party verification, and the adoption of reporting guidelines and standards (Hammond & Miles, 2004: 69-71).

Therefore, the quality of stand-alone report will be measured according to the following rating:

- 1 if the stand-alone report is audited, and 0 otherwise.
- 1 if the stand-alone report is prepared according to some guidelines and 0 otherwise.

#### 4. THE SAMPLE AND STATISTICAL METHODS

The objective of study is to examine a framework for establishing the determinants and consequences of CSD. In order, to obtain a deeper understanding of CSD, the framework is examined through an empirical study at two levels (country and company level) and through four empirical models using statistical methods. The sample is identified, in conformity with each level and each model. At a country level, the empirical model is designed to examine the determinants of the level of CSD in different countries. According to the objective of this model, the sample is designed to include a large number of countries and to achieve diversity which means that countries in the sample should be different at different stages of economic attainment and have different culture dimensions. The determining factor in the selection of the countries in the sample is the availability of data, in particular data related to culture values because there is no clear definition for culture values and there is a problem in cross-cultural research in determining convenient measures of cultural dimensions. Hofstede's cultural values are used to measure cultural variables, which enable a sample of 58 countries. The data are collected for more than one year in order to provide greater confidence in the results. The determining factor for choosing the years is to choose the most recent years available at the outset of this study. Another factor that should be taken into account in the selection of these years is the availability of data regarding the level of corporate governance in each country. The *Global Competitiveness Report* presents an index for corporate governance in each country in 2004. Furthermore, the consistency between the years of country level data and company level data is taken into account. Therefore, the data are collected for three years: 2004; 2005; and 2006.

At a company level, three empirical models are presented: (1) a model to examine the determinants of CSD; (2) a model to examine the impact of CSD on corporate social reputation; and (3) a model to examine the impact of CSD on corporate market value. To

achieve the objectives of these models, it is necessary to select a country that provides good practices of CSR and a high level of CSD. The UK was selected because of the following:

- ¶ The UK is increasingly seen as one of the leading contributors internationally on CSR thinking and practice;
- ¶ UK companies provide best practices of CSD.

For first and second model, the sample contains both FTSE 100 and FTSE 250 companies for the years 2005 and 2006. Due to problems in obtaining annual reports from a number of companies, the final number of companies is 317 in 2005 and 327 in 2006. FTSE companies have been selected in the light of:

- ¶ Sampling large size companies is common practice in previous studies; and
- ¶ Large size companies hypothetically provide the best practices of CSD, which are considered to be more consistent with the objective of models.

For Model 3, the sample is confined only to FTSE 100 companies with FTSE 250 companies excluded. There is clear difference in market capitalisation between two indexes (FTSE 100 companies and FTSE 250 companies) where FTSE 100 companies represent about 81% of the market capitalisation of the entire London stock exchange while the FTSE 250 index represents about 13% of the FTSE 100 index. Therefore, using both to examine the impact of CSD on market value would create an inconsistent sample and could provide misleading results. In addition, significant levels of financial data which are required to measure Tobin's  $q$  are missing for FTSE 250 companies in the DataStream database.

At the company level, the data are also collected for more than one year to provide greater confidence in the results. The determining factor for choosing the years is to select the most recent years at the outset of the study. Another factor taken into account is the time required to measure CSD in annual reports.

The Table 5.2 summarise the samples used in this study.

**Table 5.2. The Sample**

Model	Sample	Explanation
Determinants of CSD at the country level	58 countries	The important factor in determining the sample is cultural values data, so the sample is determined according to the available cultural data. The sample therefore consists of 58 selected countries, based on the countries mentioned in Hofstede's survey. Data covers 2004, 2005 and 2006.
Determinants of CSD at the company level	FTSE 100 and FTSE 250 companies in 2005 and 2006.	To examine a suggested model for determinants of CSD, UK companies were chosen, as they provide a high level of CSD and consequently more confidence in the results can be expected. In the UK, the FTSE all-share index represents 98% of the UK's market capitalisation, with a combined value of approximately UK£1.28trn. The FTSE all-share index is considered to be the best performance measure of the overall London equity market. The FTSE all-share index also accounts for 8.11% of the world's equity market capitalisation ( <a href="http://www.ftse.co.uk">www.ftse.co.uk</a> ). The FTSE all-share is the aggregation of the FTSE 100 index, FTSE 250 index and the FTSE small-cap index. The sample contains both FTSE 100 and FTSE 250 companies over a period of two years, 2005 and 2006. The FTSE 100 index lists the largest 100 companies, and represents about 81% of the market capitalisation of the entire London stock exchange. The FTSE 250 index represents about 13% of the FTSE 100 index. Due to problems in obtaining annual reports from a number of companies, the final number of companies is 317 in 2005 and 327 in 2006. FTSE companies provide clear corporate characteristics and more probability of applying good governance practices. They also tend to be the subject of high levels of media coverage. All economic sectors were included in the sample, as the study is related to CSD, not only environmental disclosure, and to overcome the limitations of the majority of previous studies which are restricted to a number of economic sectors. Therefore, it can be argued that the results from such a sample are more general.
The impact of CSD on corporate reputation		
The impact of CSD on corporate market value	FTSE 100 companies	The significant difference in market capitalisation between FTSE 100 and FTSE 250 companies creates inconsistent sample. Missing data for FTSE 250 in DataStream.

Different empirical models include different types of data and statistical method will be determined according to type of data in each model. Following table summarize statistical methods used in empirical models.



Table 5.3: Statistical methods

Model	Type of data	Regression	Correlation
Determinants at the country level	Count data	Poisson regression	Both parametric and non-parametric correlations
Determinants of quality of CSD in annual reports			
Determinants of quantity of CSD in stand-alone reports			
Determinants of quality of CSD in stand-alone reports			
Determinants of total quantity of CSD			
The impact of CSD on corporate social reputation			
Determinants of total quality of CSD	Continuous data	OLS regression	Parametric and non-parametric correlation
Determinants of quantity of CSD in annual reports			
The impact of CSD on corporate market value			

In addition, non-parametric tests (the Mann-Whitney U test and The Kruskal Wallis test) are used to measure correlation between CSD at a company level and some other variables: type of activities; number of foreign countries; number of directors on the board; the presence of corporate responsibility committee and media pressure.

## 5. PILOT STUDY

The pilot study was conducted to achieve two objectives:

- Examine the reliability of disclosure index to ensure its ability to represent various aspects of social disclosure in the selected sample; and
- Examine the reliability of the disclosure measurement.

To achieve these objectives, a number of companies were randomly selected, but taking into account the need to be representative of all sectors in the sample. 56 companies (16% of the sample) were selected (Appendix 1). The annual reports for these companies (in both 2005 and 2006) were distributed to the researcher and another independent person.

### 5.1. Reliability of Disclosure Index

By applying a previous disclosure index to the selected companies, the researcher noted the following:

- The employee category is the largest part of CSD.
- There are two categories—energy and value-added—that can be changed from main categories to sub-categories. The energy category was added to the environment category, and the value-added category was added to the ‘other’ category.
- Two further main categories should be added: ethical information; and general health and safety information. A review of the annual reports indicated that most companies provide information concerning its commitment to ethics, or indicate the presence of a code of conduct within the company. Although the volume of such information is small, it cannot be integrated with any other category. The review of the annual reports also highlighted that most companies provide information on general health and safety policies that are applied to all parties dealing with the company, such as employees, customers and suppliers. This category of disclosure is difficult to integrate into any other section, but as it deals with general information, it can be integrated into ‘other information’, which becomes ‘health, safety and other information’. The ‘other’ category includes:
  - Reports about the presence of a CSR committee, its members and activities;
  - Information about awards received by the company concerning its social responsibility;
  - The presence of the company in one or more social indices; and
  - General disclosure which cannot be attributed to other categories.

In total, the study uses seven categories of CSD: environment; community; employees; product; customer; ethics; health, safety and other.

Therefore, the disclosure index was restructured as the following;

#### 1-Environment

- Pollution control

- Compliance with pollution laws and regulations
- Prevention or repair environmental damage
- Conservation of natural resources,
- Using recycled materials
- Efficiently using materials resources in the manufacturing process
- Supporting anti-litter campaigns
- Receiving award
- Preventing waste
- Designing facilities harmonious with the environment
- Contributions to beautify the environment
- Restoring historical buildings/structures
- Undertaking environmental studies
- Wildlife conservation
- Conservation of energy
- Utilizing waste materials for energy production
- Disclosing increased energy efficiency of products
- Research aimed at improving energy efficiency of products
- Receiving awards

## 2-Community development

- Donations
- Summer or part-time employment of students
- Sponsoring public health projects
- Aiding medical research
- Sponsoring educational conferences,
- Funding scholarship programmes or activities
- Supporting national pride/government sponsored campaigns
- Other special community related activities,

## 3-Employee

- Employee health and safety
- Employment of minorities or women
- Employee training
- Employee assistance/benefits
- Employee remuneration
- Employee profiles
- Employee share purchase schemes
- Employee morale
- Industrial relations
- Other

## 4-Products

- Product development(research and development)
- Product safety
- Product quality

## 5-Customers

- Customer satisfaction

## 6-Ethical

- Code of conduct

## 7-Health, Safety, and Others

- General health and safety information that cannot be attributed to specific category
- (Corporate objectives/policies; general disclosure of corporate objectives /policies relating to the social responsibility of the company to the various segments of society
- Report about the presence of corporate social responsibility committee and its members and activities,
- Other; disclosing /reporting to groups in society other than shareholders and employees. e.g. Consumers, any other information that relates to the social responsibility of the company).
- Information about awards received by the company concerning its social responsibility, or the presence of the company in one, or more, social indexes

### 5.2. Reliability of Disclosure Measurement

The basic characteristic of content analysis is that data should be tested to prove that they are objective, systematic and reliable (Krippendorff, 1980). As Hayes & Krippendorff (2007) state, “Conclusions from such data can be trusted only after demonstrating their reliability” (Hayes & Krippendorff, 2007: 77). They further argue that among the types of reliability (stability, reproducibility, and accuracy), reproducibility is the strongest and most feasible type to test. The reliability of measurement is measured using the inter-coder test in which the disclosure is assessed by the researcher and another person, and the results then compared.

Lombard et al. (2002) suggest guidelines for the calculation of inter-coder reliability, including:

- Use one or more appropriate indices. There are different measures or indices of inter-coder reliability, and there is no theoretical basis for choosing between them. Hayes & Krippendorff (2007) suggest that a good measure of reliability should have the following properties:
- It should assess the agreement between two or more coders;
- It should be grounded in the distribution of the categories or scale points actually used by the coders;

- It should constitute a numerical scale between at least two points with sensible reliability interpretations;
- It should be appropriate to the level of measurement of the data; and
- Its sampling behaviour should be known or at least computable.

Using these criteria, they evaluate the adequacy of a number of measures of reliability commonly used by researchers (percent agreement, Bennett et al's S, Scott's Pi, Cohen's Kappa, Fleiss's K, Cronbach's alpha and Krippendorff's alpha). They propose Krippendorff's alpha as the standard reliability measure. For the purposes of this study, several measures are used: per cent agreement, Scott's Pi, Cohen's Kappa and Krippendorff's alpha. Hughes and Garrett (1990) argue that for several decades the consensus has been that percentage agreement is an unacceptable estimation approach (e.g., Krippendorff, 1980; Scott, 1955). One of the most important deficiencies of percentage agreement is that it does not correct for chance agreement among coders. Scott's Pi (1955), Krippendorff's alpha (1980) and Cohen's Kappa (1960) are intra-class correlations that share the following conceptual definition:

$$\text{observed agreement} - \text{expected agreement} / 1 - \text{expected agreement}$$

- Determine an appropriate minimum acceptable level of reliability. Higher criteria should be used for liberal indices (such as per cent agreement), and lower criteria can be used with more conservative indices (Cohen's Kappa, Scott's Pi, and Krippendorff's alpha). Seppanen (2009) provides the interpretation of the significance of Krippendorff's alpha as:

**Table 5.4.** The interpretation of the significance of Krippendorff's alpha

<b>K</b>	<b>Interpretation</b>
<b>0</b>	Poor agreement
<b>0.0 - 0.2</b>	Fair agreement

<b>0.21 - 0.40</b>	Slight agreement
<b>0.41 - 0.60</b>	Moderate agreement
<b>0.61 - 0.80</b>	Substantial agreement
<b>0.81 – 1.00</b>	Almost perfect agreement

Source: Seppanen (2009: 113)

- Do not use:
  - Only per cent agreement to calculate reliability,
  - Cronbach's alpha, Pearson's r, or other correlation-based indices that standardise coder-values and only measure co-variation,
  - Chi-square to calculate reliability, and
  - Overall reliability across variables, rather than reliability levels for each variable, as a standard for evaluating the reliability of the instrument.

### 5.2.1. The reliability of measurement of the quantity of disclosure

The annual reports were reviewed by both a researcher and another person. Then the inter-coder reliability was measured using a number of reliability measures. The differences in the results were discussed to identify the reasons for these differences. The reliability measures used were per cent agreement, Scott's Pi, Cohen's Kappa, and Krippendorff's alpha. At the time of the pilot study, the software to measure Krippendorff's alpha had not been distributed widely, so the first three measures were calculated first, using Simstat software.<sup>33</sup> In 2007, Hayes & Krippendorff (2007) presented a freely-available macro written for SPSS to calculate Krippendorff's alpha, and in 2008, the on-line utility ReCal was developed to calculate several measures of reliability, among them Krippendorff's alpha. This on-line utility was used to measure Krippendorff's alpha<sup>34</sup>.

The annual reports for 2005 were reviewed by two coders to measure the quantity of social disclosure by calculating the number of sentences used. Each coder provided the number of

<sup>33</sup> Appendix 2 provides a sample of Simstat outputs.

<sup>34</sup> To give assurance about the results of ReCal, per cent agreement, Scott's Pi, and Cohen's Kappa using this online utility and Simstat software, were compared. Appendix 3 provides a sample of ReCal results.

sentences for each category of CSD: environment (ENVs), community (COMs), employees (EMPs), product (PROs), customer (CUSs), ethical (ETHs), and health, safety and other (OTHs). Then the results were organised in the following data set-up for use with Simstat software and ReCal utility.

Unit	Var1coder1	Var1coder2	Var2coder1	Var2coder2
Company 1				
Company 2				
Company 3				
Company 4				

In this data set-up, each row represents the results for each company and each column represents the coder judgements for a particular variable. The reliability is measured at the level of each category of CSD. Table 5.5 presents the results of reliability measures.

**Table 5.5. Reliability of Quantity Measurement, 2005**

	Percent agreement	Cohen's Kappa	Scott's pi	Krippendorff's alpha
<b>ENVs</b>	80.4%	0.795	0.794	0.796
<b>COMs</b>	89.3%	0.888	0.888	0.889
<b>EMPs</b>	89.3%	0.890	0.889	0.890
<b>PROs</b>	73.2%	0.632	0.624	0.627
<b>CUSs</b>	75.0%	0.682	0.677	0.680
<b>ETHs</b>	89.3%	0.860	0.860	0.861
<b>OTHs</b>	76.8%	0.760	0.759	0.761
<b>CSDs</b>	41.1%	0.403	0.400	0.405

Table 5.5 indicates a high degree of agreement between the two coders, which can attributed to the clarity in presentation of information on CSR through annual reports, especially as a large number of companies have a special section for this information in their annual reports. This degree of agreement could also reflect a high degree of clarity in the disclosure index.

Table 5.5 indicates that product and customer information show the lowest degree of agreement. The results were discussed between the two coders and the discussion indicated that the main reason for the differences is that both product and customer information is considered general information, in which a large proportion of companies provide a wide range of information about their products and their customers through annual reports.<sup>35</sup> As a result of

<sup>35</sup> For example, a number of companies, in particular chemical companies, provided a large amount of information on product description. In addition, the information about both product and customers was often presented during the discussion of other topics such as the relationship with suppliers and the company's financial position.

the findings, it is necessary to confine the definition of information on products to product quality, and information on customers to customer satisfaction.

The category of ‘other’ information also shows a low degree of agreement between the two coders. The discussion showed that the main reason is that this category contains information on health and safety. The confusion about information on health and safety occurred because this information was often presented in a general form. As a result, it was found that there is a need to differentiate between general health and safety information, and the health and safety information that is related to employees.

In addition, the discussion showed that care has to be taken when the sentences are counted. After the discussion of results between the two coders, they reviewed the annual reports for 2006 to measure the number of sentences of social disclosure. The reliability measures are presented in Table 5.6, which shows a high degree of agreement between the two coders and consequently a high degree of reliability in the content analysis procedures.

**Table 5.6. Reliability of Quantity Measurement, 2006**

	Percent agreement	Cohen's Kappa	Scott's pi	Krippendorff's alpha
ENVs	91.1%	0.906	0.906	0.907
COMs	91.1%	0.907	0.906	0.907
EMPs	92.9%	0.926	0.926	0.927
PROs	96.4%	0.946	0.946	0.946
CUSs	92.9%	0.888	0.888	0.889
ETHs	94.6%	0.920	0.920	0.921
OTHs	87.5%	0.870	0.870	0.871
CSDs	60.7%	0.601	0.599	0.603

### 5.2.2. The reliability of quality measurement

The same procedures that were used to measure the reliability of quantity measurement were used to measure the reliability of quality measurement. After the agreement on the quantity of CSD for each company, the annual reports in both 2005 and 2006 were reviewed by the two coders to measure the quality of disclosure. Each coder provided a quality measurement for each category of CSD. Then the results were organised in the data set-up.



Tables 5.7 and 5.8 provide the results regarding reliability measures. The results, in general, provided evidence for a high degree of agreement between the two coders and consequently a high degree of reliability in quality measurement procedures. The discussion between the two coders indicated two aspects:

- Reducing the number of points in the ranking system for disclosure quality, leads to reducing the differences between coders.
- The differences between coders is mainly due to the evaluation of narrative disclosure that presents specific information, in particular the information on company objectives concerning CSR, in which there is a need to differentiate between general and specific objectives.

**Table 5.7. Reliability of Quality Measurement, 2005**

	Percent agreement	Cohen's Kappa	Scott's pi	Krippendorff's alpha
ENVQ	87.5%	0.867	0.867	0.868
COMQ	92.9%	0.926	0.926	0.926
EMPQ	89.3%	0.891	0.89	0.891
PROQ	92.9%	0.859	0.859	0.86
CUSQ	92.9%	0.872	0.872	0.873
ETHQ	100.0%	1.000	1.000	1.000
OTHQ	78.6%	0.772	0.771	0.773
CSDQ	83.9%	0.836	0.836	0.837

**Table 5.8. Reliability of Quality Measurement, 2006**

	Percent agreement	Cohen's Kappa	Scott's pi	Krippendorff's alpha
ENVQ	94.6%	0.943	0.943	0.943
COMQ	92.9%	0.926	0.926	0.926
EMPQ	96.4%	0.963	0.963	0.964
PROQ	92.9%	0.859	0.859	0.860
CUSQ	92.9%	0.872	0.872	0.873
ETHQ	100.0%	1.000	1.000	1.000
OTHQ	78.6%	0.772	0.771	0.773
CSDQ	83.9%	0.836	0.836	0.837

## 6. POSITIONALITY

Positionality indicates how the researcher's personality can affect the research process and results. As Moser (2008) point outs, "The reality is that researchers will not all produce the same findings because we all speak from a particular place, out of a particular history, a particular experience, a particular culture, without being contained by that position" (2008:

384). Personality involves a number of key components that generally agreed upon namely, stable characteristics, and a certain degree of consistency in how people respond across various situations (Moser, 2008: 387). The following paragraphs clarify how my personality affected this research.

After I have graduated from Benha University in my home country Egypt, I obtained the post of assistant teacher at the Faculty of Commerce. I gained a Master's Degree in Accounting and I successfully qualified for a PhD in Accounting. To pass this examination, I had to read widely in accounting literature. Then I got scholarship from Egyptian government to undertake a PhD in Accounting at a university in the UK. The selection of the subject of thesis was determined largely by the requirements of the scholarship, which required that the study was linked to accounting disclosure. I selected the subject of thesis in the light of reading of the latest topics in accounting literature at the time. Also, this subject is commensurate to a large extent with my social and cultural background as I belong to a developing country where the companies are not particularly interested in their social responsibilities. Although there is a large volume of studies related to CSD, I believe that there is a need to develop a model that helps understand the phenomenon of CSD and also understand why this type of disclosure is not common in countries like Egypt.

The structure of thesis was influenced to a degree by my personal circumstances; when I came to the UK for the first time I faced with significant problems regarding my English language skills. To overcome these I read a huge volume of studies. Also, I am largely influenced by my native language (Arabic) and type of research which I use in Egypt. Therefore, the thesis includes a large literature review. Although the methodology was influenced by the review of previous studies, my personality and preferences intervened to a large extent in the selection of methodology. I prefer the practical rather than the theoretical side of research. I am also more comfortable with figures than with text. In addition, I strongly

believe that theories play a limited role in social science as a general and in particular accounting studies. On the basis of the foregoing, the thesis includes a large practical part.

## **7. RESEARCH ETHICS**

Research ethics is important as it promotes the objectives of research like knowledge, truth and the avoidance of errors. The scientific community should be aware of fraud and malpractice in research. For business research, the consequences of poor research ethics are not as significant, as say, for medical research, but nevertheless, it can undermine the integrity of the teaching profession (Dotterweich & Garrison, 1998: 433). A number of organisations provide guidance on the subject, such as: an EU Code of Ethics for Socio-economic Research funded by the European Commission's Information Society Technologies (IST) Programme; ethical guidelines issued by Social Research Association and; Ethical Guidelines for Good Research Practice issued by Association of Social Anthropologists of the UK and the Commonwealth. These various guidelines include a number of criteria which define good ethical practices in research. Despite the diversity of such guidance, they include largely similar criteria. All researchers are committed to the following practices which are derived from the EU Code of Ethics for Socio-economic Research:

- The aim of the study is to benefit society;
- Researchers should endeavour to balance professional integrity with respect for national and international law;
- Researchers should endeavour to ensure that an appropriate research method is selected on the basis of informed professional expertise;
- Researchers should endeavour to ensure factual accuracy and avoid falsification, fabrication, suppression or misinterpretation of data;

- Researchers should endeavour to ensure that reporting and dissemination are carried out in a responsible manner;
- Researchers should endeavour to ensure that methodology and findings are open for discussion and peer review;
- Researchers should endeavour to ensure that any debts to previous research as a source of knowledge, data, concepts and methodology are fully acknowledged in all outputs; and
- Researchers should endeavour to ensure that all data are treated with appropriate confidentiality and anonymity.

Dotterweich & Garrison (1998) argue that the ethical issues in business research are: (1) falsifying data; (2) violating the confidentiality of a client; (3) ignoring contrary data; (4) using inconsistent statistical treatment; (5) selective reporting of data; (6) using the same data for several papers; (7) plagiarism; (8) co-authored research; (9) failing to give credit to co-author; (10) adding names of persons not contributing to research; and (11) multiple journals. In preparing the current research, the researcher was committed to avoiding the following bad research ethics:

- Falsifying data (fabrication during data collection); the researcher was exceedingly careful during the data collection process;
- Ignoring contrary data;
- Using inconsistent statistical treatment; as a result the researcher used various statistical methods according to the nature of data;
- Selective reporting of data; and
- Plagiarism.

## **8. SUMMARY**

This chapter provides an explanation for the method of measuring CSD in both annual and stand-alone reports.

- CSD quantity in annual reports is measured by: number of sentences; number of pages; and percentage of pages.
- CSD quantity in stand-alone reports is measured as the total number of report pages.
- The quality of CSD in annual reports is measured using a 2-point scale system to assess the quality of social disclosure in annual reports as follows:
  - 1, for quantity disclosure, graphs or narrative disclosure which reports the policies and activities of a company concerning its social responsibility, or
  - 0, otherwise.
- The quality of stand-alone reports is measured according to the following rating:
  - 1, if the stand-alone report is audited, and 0, otherwise.
  - 1, if the stand-alone report is prepared according to set guidelines and 0, otherwise.

This chapter also provides evidence regarding content analysis reliability, using a variety of reliability measures that are commonly used in previous research.

The next part of the study (the empirical part) presents an empirical examination of the suggested theoretical models in order to explain the determinants and consequences of CSD. This will commence in the next chapter by providing a comprehensive analysis for the results of the measurement of CSD in the sample companies.



# Chapter 6

**ANALYSIS OF CORPORATE SOCIAL RESPONSIBILITY  
DISCLOSURE**

## Chapter 6

### Analysis of Corporate Social Responsibility Disclosure

#### 1. INTRODUCTION

This chapter provides descriptive statistics of CSD. The importance of this chapter is to provide support for the argument that UK companies provide best practices of CSD and they are appropriate for examining a suggested framework. The chapter is based on statistical analysis of the results of disclosure measurement. The objectives of this chapter are:

- To analyse CSD (quantity and quality) in annual reports and corporate responsibility reports,
- Analyse the levels of different categories of CSD in annual reports,
- Comparative analysis of CSD in different economic sectors,
- Analysis of the correlation between different variables of CSD.

This chapter addresses a key question regarding the level of CSD in UK companies generally, and in each economic sector. The chapter proceeds as follows: Section 2 presents a general view of CSD in the sample, sections 3 and 4 provide analysis of CSD in annual reports and different economic sectors respectively, and the last section presents a correlation analysis among different CSD variables.

#### 2. DESCRIPTIVE STATISTICS OF CSD

Table 6.1 provides descriptive statistics for CSD over a period of two years, 2005 and 2006. With regard to CSD in annual reports, the results show that minimum disclosure in annual reports is 0, indicating that some companies do not provide any social disclosure in their

annual reports. It appears that only a few companies do not provide CSD, 7 (0.022%) companies in 2005 and 9 (0.027%) companies in 2006, reflecting that more than 99.9% of UK companies provide some form of CSD. The high proportion of companies that do provide some CSD reflect, as expected, the growing interest of UK companies in CSD and consistent with what has been stated in an early study of Guthrie & Parker (1990) that 98% of UK companies provide CSD against 85% and 56% of U.S. and Australian companies also provide CSD. Studies in developing countries indicate lower percentages. Andrew, et al (1989) found that of 119 publicly-listed companies in Malaysia and Singapore, 26% of companies provide CSD. Lynn, (1992) found that only 17 (6.4%) of 264 companies in Hong Kong provide any CSD data in their 1989 annual reports.

Table 6.1: Descriptive statistics of CSD

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Part 1: 2005						
CSDarp	.00	16.62	4.1546	3.00691	1.349	2.450
CSDars	.00	500.00	102.24	76.47278	1.480	3.304
CSDarpp	.00	.22	.0432	.03018	1.787	5.665
CSDarq	.00	1.00	.4280	.15928	.324	1.246
CSDsa	.00	230.00	16.3531	28.97254	3.212	15.175
CSDsaq	.00	2.00	.3245	.65769	1.798	1.714
CSDt	.00	231.94	19.7855	29.01493	3.137	14.503
CSDty	.00	2.75	.7441	.69467	1.725	1.777
Frequency	0	1	2			
SA	195(61.5%)	122(38.5%)				
CSDsaq	56(46%)	34(28%)	32(26%)			
Part 2: 2006						
CSDarp	.00	28.67	4.7765	3.61122	1.934	7.446
CSDars	.00	691.00	116.89	89.13449	2.144	9.165
CSDarpp	.00	.21	.0433	.02859	1.641	5.856
CSDarq	.00	1.00	.4258	.16421	-.099	.523
CSDsa	.00	247.00	16.1410	27.02171	3.167	18.188
CSDsaq	.00	2.00	.3365	.67013	1.743	1.488
CSDt	.00	251.93	20.1771	27.40322	3.018	16.692
CSDty	.00	2.71	.7529	.71428	1.649	1.492
Frequency	0	1	2			
SA	199(60.9%)	128(39.1%)				
CSDsaq	58(46%)	35(27%)	35(27%)			

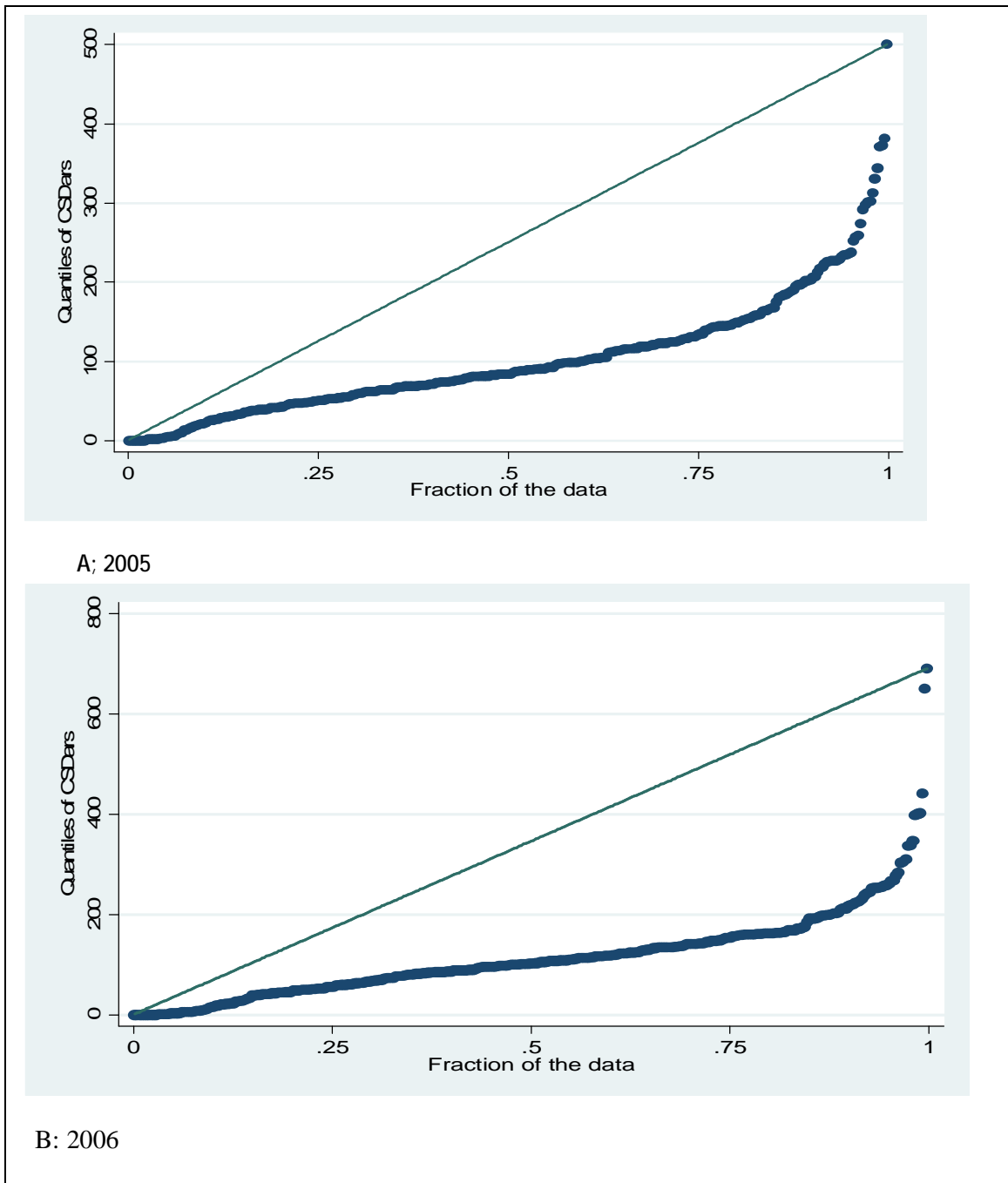


The quantity of CSD in annual reports was measured using three indicators: number of pages, number of sentences and proportion of pages. Regarding the number of pages of disclosure in annual reports (CSDarp), it was between 0 and 16.62 pages in 2005, and increased to between 0 and 28.67 pages in 2006. The average number of pages was 4.15 in 2005, and this increased slightly to 4.78 pages in 2006. This average number of pages was higher than that found in some other countries (the figure of 0.7 pages found by Cowen, et al., (1987) and 0.39 pages found by Patten (1991), in US companies, and 0.75 in Hackston & Milne (1996) in New Zealand companies), and reflects the increasing interest in corporate responsibility information in annual reports. The number of sentences of disclosure in annual reports (CSDars) was between 0 and 500 sentences in 2005 and between 0 and 691 sentences in 2006, with the average of 102.24 sentences in 2005, increasing slightly to 116.89 sentences in 2006. These average numbers of sentences, compared with the study of Hackston & Milne (1996), which indicated the average number of sentences as 23.4 in New Zealand companies, confirms the increased interest in CSR information. These results also reflect that social disclosure in annual reports increased slightly between 2005 and 2006, and this is proven by the fact that the average percentage of social disclosure pages in annual report pages (CSDarpp) is approximately constant over the two-year period, (.0432 in 2005 and .0433 in 2006).

To examine whether the results of the quantity of CSD in annual reports (CSDars) follows normal distribution for data, the Shapiro-Wilk W test for normal data is performed. The results of the Shapiro-Wilk W test show that CSDars does not follow normal distribution in both 2005 and 2006. The following figure presents the distribution of data concerning CSDars in 2005 and 2006, and shows that the majority of companies provide less than 200 sentences of CSD over the two-year period. The frequencies analysis shows that in 2005, 89% of companies provide less than 200 sentences of CSD, (59.3% of companies provide less than 100 sentences and 29.7% provide between 100 and 200 sentences). In 2006, 87.6%

of companies provide less than 200 sentences, (47.4% of companies provide less than 100 sentences and 40.2% provide between 100 and 200 sentences).

Figure 6.1: graphical distribution of quantity of CSD in annual reports

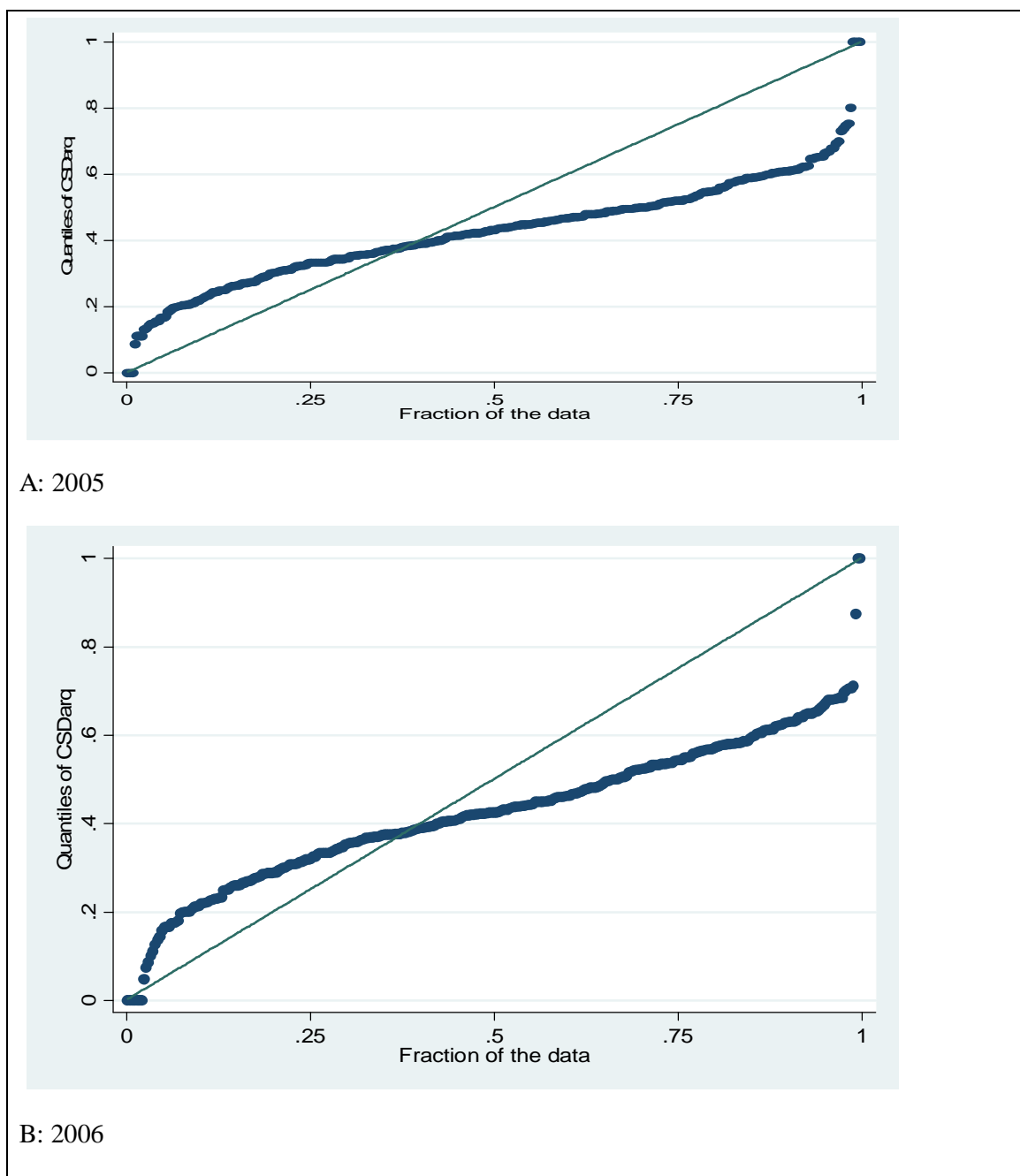


With regard to the quality of social disclosure in annual reports (CSDarq), the score for disclosure quality is between 0 and 1, with the approximately constant average over two

years being 0.4280 in 2005, and 0.4258 in 2006. The average score of CSDarq reflects that the majority of social responsibility disclosure in annual reports comprises only a general statement and does not report specific activities of CSR (i.e. rhetorical disclosure). This result indicates a low level of CSD quality in annual reports in UK companies, which suggests that increasing interest in CSD is reflected only in the increasing quantity of disclosure, without paying the same attention to the quality of this disclosure. The low score of disclosure quality is consistent with the viewpoint that because rhetorical disclosure is cheap, the companies tend to provide it in large volumes (Toms, 2002: 270).

To examine whether the results of the quality of CSD in annual reports (CSDarq) follows normal distribution for data, the Shapiro-Wilk W test for normal data is performed. The results of the Shapiro-Wilk W test show that CSDarq does not follow normal distribution data in both 2005 and 2006. The following figure presents the distribution of data concerning CSDarq in 2005 and 2006, and shows that the quality score for the majority of companies is between 0.2 and 0.6 over the two years. The frequencies analysis shows that in 2005, 6.8% of companies provide a quality score of less than 0.2 and 80.3% of companies provide a quality score between 0.2 and 0.6 (35.5% provide quality scores between 0.2 and 0.4 and 44.8% provide quality scores between 0.4 and 0.6), while 12.9% of companies provide quality scores of more than 0.6. In 2006, 7.8% of companies provide a quality score of less than 0.2 and 77.9% of companies provide a quality score between 0.2 and 0.6 (34.6% provide quality scores between 0.2 and 0.4 and 43.3% provide quality scores between 0.4 and 0.6), while 14.3% of companies provide quality scores of more than 0.6.

Figure 6.2: graphical distribution of quality of CSD in annual reports

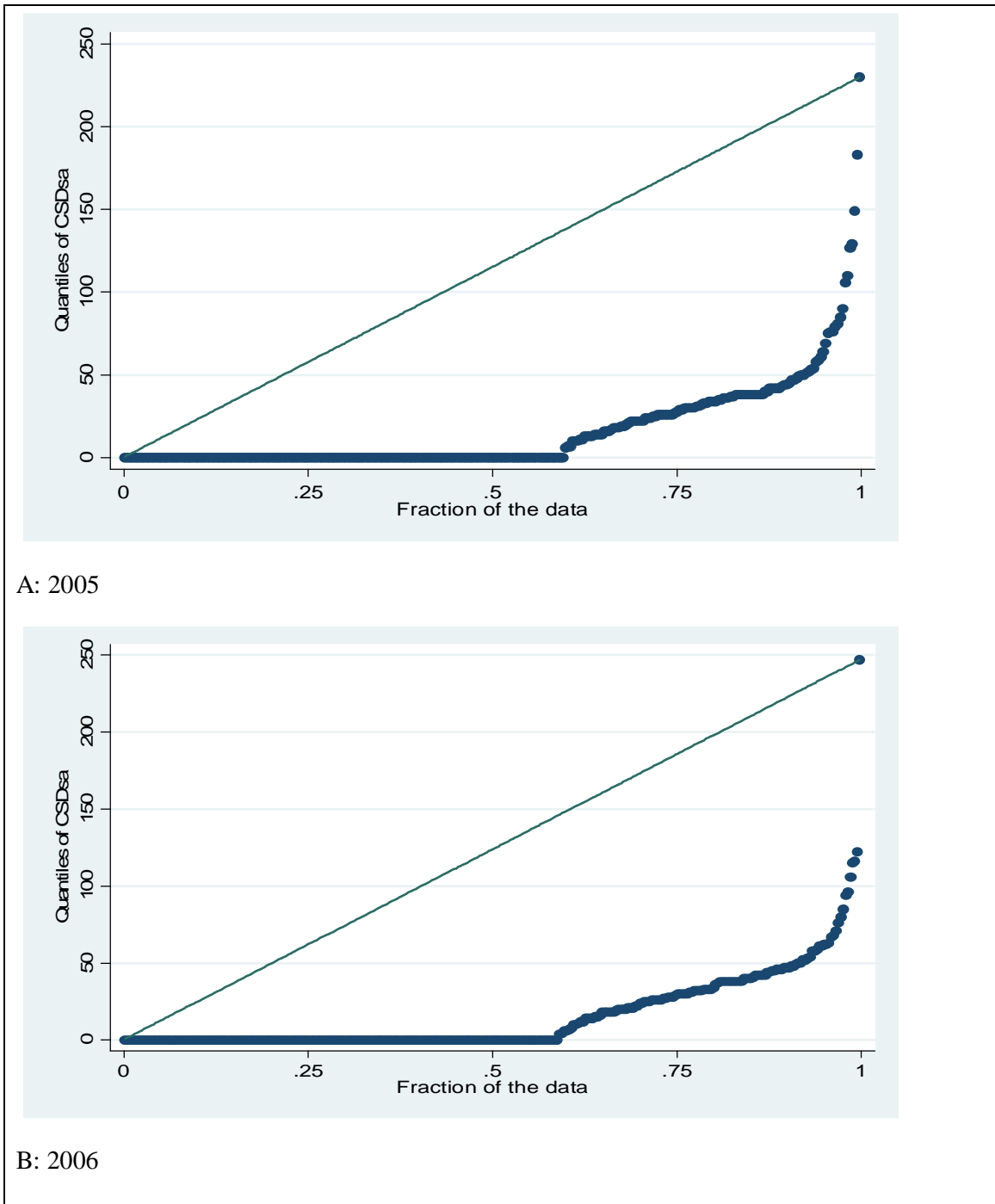


With regard to corporate responsibility reports, the results show that a higher percentage of companies did not produce stand-alone corporate responsibility reports. In 2005, 195 companies (61.5%) and 199 companies (60.9%) in 2006 did not produce stand-alone corporate responsibility reports, while 122 (38.5%) in 2005 and 128 (39.1%) in 2006

produced such reports. This finding is lower than has been found in the study of Hooland & Foo (2003), which indicated that 53% of UK companies produced stand-alone reports compared with 39% in the US. It is also lower than the global average of the publishing of stand-alone reports. In 2005, 52% of G250 (global 250 companies) and 33% of N100 (national 100 companies in 16 countries) companies produced separate corporate responsibility reports, compared with 45% and 28% respectively in 2002, and 35% and 24% respectively in 1999, (KPMG, 2002, 2005). The quantity of disclosure in stand-alone reports is measured by the number of report pages. The number of pages of corporate responsibility reports (CSDsa) is between 0 and 230 pages in 2005, and it appears to increase slightly to between 0 and 247 pages in 2006. The average number of report pages is approximately constant over two years, at 16.35 in 2005 and 16.14 in 2006. This slight increase in quantity of disclosure in stand-alone reports is consistent with a slight increase in the quantity of disclosure in annual reports, reflecting that disclosure in both annual and stand-alone reports could be related.

To examine whether the results of the quantity of CSD in stand-alone reports (CSDsa) follows the normal distribution for data, the Shapiro-Wilk W test for normal data is performed. The results of the Shapiro-Wilk W test show that CSDsa does not follow normal distribution in both 2005 and 2006. The following figure presents the distribution of data concerning CSDsa in 2005 and 2006 and shows that the majority of companies do not produce such reports, and of the companies that do produce such reports, the majority provide reports of less than 100 pages, over the two-year period:

Figure 6.3: graphical distribution of quantity of disclosure in stand-alone reports



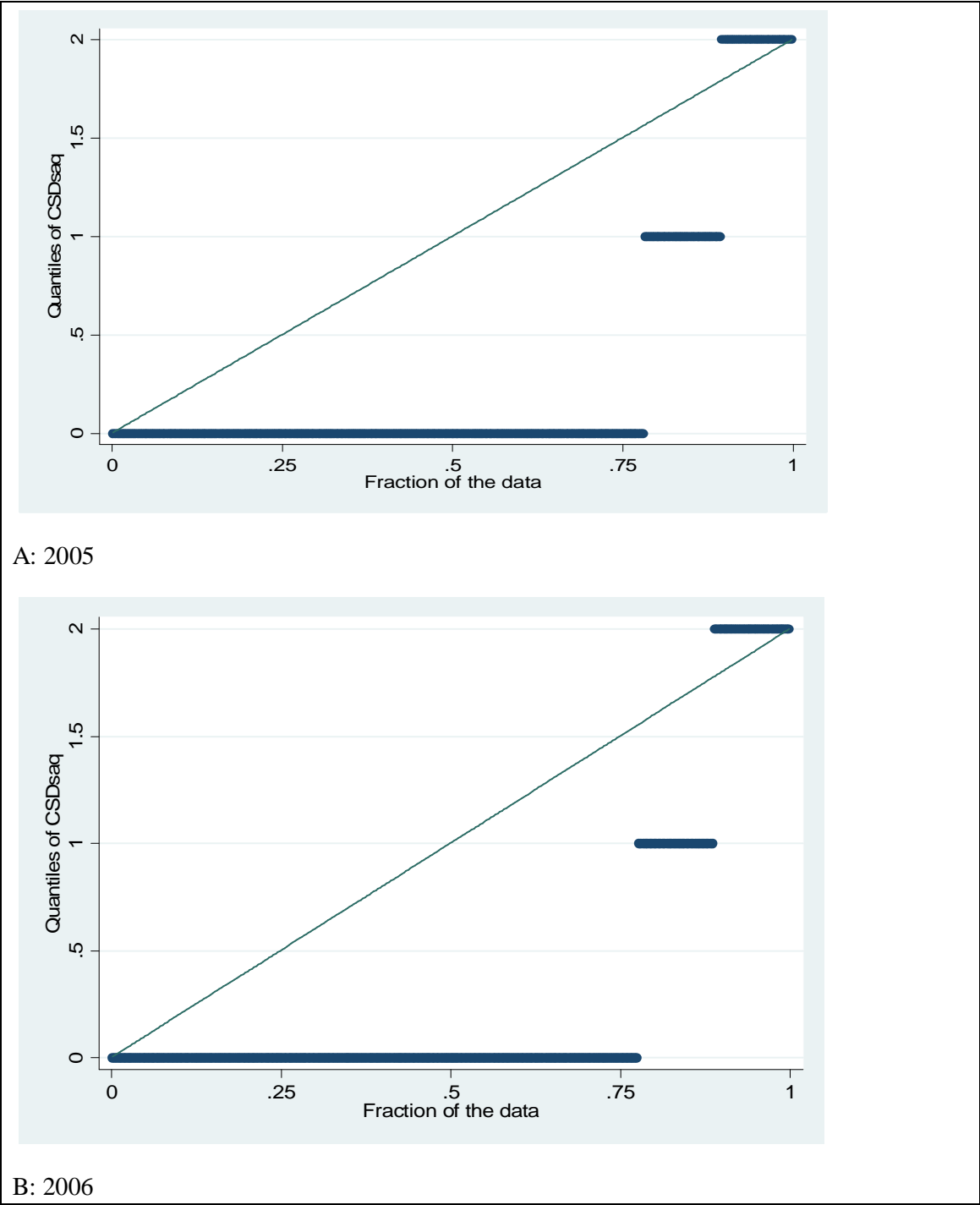
Regarding the quality of disclosure in stand-alone reports (CSDsa), the minimum quality score is 0 and the maximum is 1. The average of quality scores is 0.32 in 2005, increasing slightly to 0.34 in 2006. This finding reflects the low quality of social disclosure in stand-alone reports. To examine this finding, the frequencies analysis shows that, of the companies

that release stand-alone reports (122 and 128), there are 56 (46%) companies in 2005 and 58 (46%) in 2006 that do not use both CSR reporting guidelines (such as GRI and AAA) in preparing their corporate responsibility reports, and an independent auditor to review their reports (quality score is 0). However, 34 companies (28%) in 2005 and 35 companies (27%) in 2006 use either reporting guidelines, or an independent auditor (quality score is 1), and 32 companies (26%) in 2005 and 35 companies (27%) in 2006, use both reporting guidelines and an independent auditor (quality score is 2). These results indicate that the majority of companies could use a third-party assurance of corporate responsibility reports, considered consistent with the results of the KPMG survey, which indicated that more than half of the top 100 UK companies published corporate responsibility reports with formal assurance statements in 2002 and 2005. This finding is higher than has been found as the global average of using third-party assurance, as 29% and 30% of the top 250 of global fortune companies published third-party assured reports in 2002 and 2005 respectively (KPMG, 2002 and 2005), and amongst the top 100 companies in 22 countries, 27% and 33% provided reports that included a formal assurance statement in 2002 and 2005 respectively (KPMG, 2002 and 2005). In addition, the 2004 survey on the accountability of the world's 100 highest-revenue companies showed that 15 companies (15%) provided reports with third-party assurance. These findings suggest that UK companies are more interested in using third-party assurance as a means of adding credibility to their responsibility reports. On the other hand, the findings may indicate that stakeholders in UK companies are more interested in assured responsibility reports, and providing an assurance service for responsibility reports is a growing practice among UK accounting firms.

To examine whether the results of the quality of CSD in stand-alone reports (CSDsaq) follow normal distribution for data, the Shapiro-Wilk W test for normal data is performed. The results of the Shapiro-Wilk W test show that CSDsaq does not follow normal distribution in

both 2005 and 2006. The following figure presents the distribution of data concerning CSDsaq in 2005 and 2006, and shows that the quality score for the majority of companies is 0, over the two-year period:

Figure 6.4: graphical distribution of quality score of stand-alone reports





### 3. ANALYSIS OF CSD IN ANNUAL REPORTS

To obtain more detailed information on categories of social disclosure in annual reports, table 6.2 provides descriptive statistics for the categories of social disclosure in annual reports. It is expected that environmental information could be regarded as privileged information, due to global concerns regarding environmental issues. Owen, (2003) posited that the growing practice of environmental reporting among companies throughout western Europe is not surprising, due to the wide variety of influences that have been brought to bear on the process, from a myriad of sources.

Table 6.2: Categories of CSD in annual reports

	No. of pages			No. Of sentences			Disclosure quality		
	Min.	Max.	Mean	Min.	Max.	Mean	Min.	Max.	mean
Part 1:2005									
ENV.	.00	5.25	.7605	.00	120.00	18.2744	.00	1.00	.4958
COM.	.00	6.84	.6748	.00	200.00	15.9874	.00	1.00	.7244
EMP.	.00	8.95	1.3170	.00	183.00	34.5521	.00	1.00	.4171
PRO	.00	5.54	.1455	.00	125.00	3.8991	0	1	.47
CUS	.00	4.00	.2003	.00	79.00	4.6278	0	1	.39
ETH	.00	2.34	.1385	.00	79.00	3.7035	.00	1.00	.1055
OTH	.00	6.00	.9215	.00	107.00	21.1924	.00	.91	.1955
Part 2:2006									
ENV.	.00	8.37	.9588	.00	362.00	23.1957	.00	1.00	.4838
COM.	.00	10.40	.7021	.00	340.00	17.3303	.00	1.00	.6989
EMP.	.00	11.37	1.5484	.00	211.00	38.8685	.00	.86	.4076
PRO	.00	5.04	.1566	.00	143.00	4.5627	0	1	.45
CUS	.00	5.64	.2561	.00	103.00	6.1315	0	1	.44
ETH	.00	1.36	.1251	.00	44.00	3.4985	.00	1.00	.1587
OTH	.00	8.59	1.0594	.00	122.00	23.2997	.00	1.00	.2092

The results in both 2005 and 2006 are consistent and show that, contrary to expectation, employee-related information was found to be more readily available, and the most important social information in the annual reports (with an average of 34.55 sentences in 2005, increasing slightly to 38.87 sentences in 2006). The second category is health, safety and other information (with an average of 21.19 sentences in 2005, increasing to 23.3 sentences

in 2006). The third category is environmental information (with an average of 18.27 sentences in 2005, increasing to 23.19 sentences in 2006). Community information is the fourth category (with 15.99 sentences in 2005, increasing to 17.33 in 2006). It can also be noted that there is a lower percentage of CUS, PRO, and ETH categories compared with the other categories. These results are consistent, to a large extent, with what has been found in other countries. Hackston & Milne (1996) indicated that human resources and community information are the most important categories in New Zealand companies, and Rizk et al. (2008) indicated that employee-related information is the most important information in Egyptian companies. Lynn, (1992) found that employees information was the most important category in Hong Kong. Guthrie and Parker (1990) found that CSD in the U.S., UK and Australia was spread across six themes: 40% human resources, 31% community involvement, 13% environment, 7% energy and products and 2% other. Sobhani et al. (2009) indicated that human resource information is the most important information in Bangladesh companies. Haron (2004) postulated that, in general, between 1979 and 1991 CSD was increased by as much as 4 times, because of the changes in disclosure regulations, which made disclosure of some themes mandatory. The importance of disclosure themes has changed. Employee-related disclosure dropped from approximately 90% to about 78% and community and environmental reporting rose from approximately 10% to 32%. It is also noted that the increase in health and safety disclosure is associated with the general rise in environmental concerns, and the increase in major, widely-publicised accidents. A very low level of energy and customer information was found, regardless of the need for the economical and efficient use of energy (Haron, et al, 2004: 6).

The average number of pages for each type of disclosure provides the same results as the average number of sentences. Cowen et al. (1987) indicated that fair business practice and environmental information have a higher mean number of pages, than other types of

disclosure, but by comparison with current results, it appears that companies have changed their interests.

With regard to the quality of each category, it is expected that both ethical and other information will have the lowest quality score, due to both categories most often representing a general statement only. Consistent results in both 2005 and 2006 show that community information has the highest quality score, indicating that the majority of community information addresses the company's activities in the community. The quality scores for environment, employee, product and customer information are similar, but generally, it is a low quality score (less than 0.5), and indicates that most information for these categories is only provided in general statements. The lowest quality scores are for both ethical and other information, which is consistent with expectations.

The results concerning incidence of disclosure (the number of companies interested in each disclosure category) are consistent, to a large extent, with previous results. The following table present the number of companies that provide information about each category of CSD;

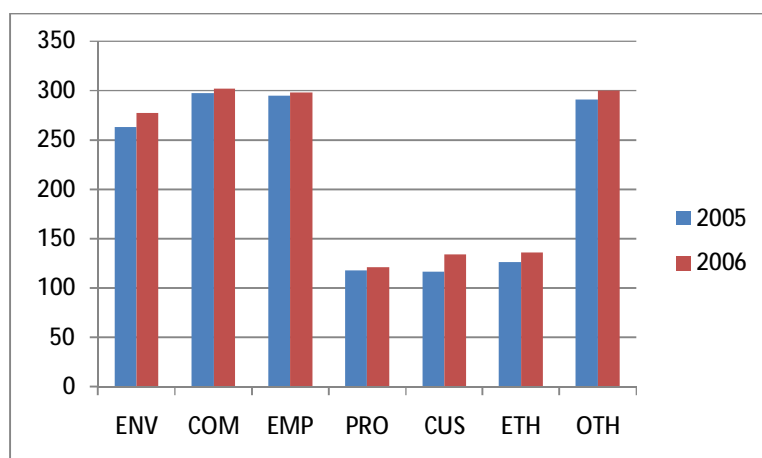
Table 6.3: The incidence of CSD categories

CSD categories	NO. OF COMPANIES	
	2005	2006
Environment	263 (83%)	277 (85%)
Community	297 (94%)	302 (92%)
Employee	295 (93%)	298 (91%)
Product	118 (37%)	121 (37%)
Customer	116 (37%)	134 (41%)
Ethical	126 (40%)	136 (42%)
Health, safety and other	291 (92%)	300 (92%)

These results indicate that a higher number of companies are more interested in community information, than other categories. It also provides additional evidence that companies are more concerned about community, employees, environment, health, safety and other information, while they are less concerned about product, customer and ethical information. These results are not consistent with the findings of Hackston & Milne (1996), who indicated

that a higher number of New Zealand companies make disclosures on human resources and products. In the study of Sobhani et al. (2009) in Bangladesh, 100% of companies are found to disclose at least one item of disclosure on human resources, while some other categories are as follows: community issues (47%), consumer issues (23%) and environmental issues (19%). Imam, (2000) found that of 40 companies in Bangladesh, all companies provided employee information, 25 % of the sample companies provided community, and 22.5 %, environmental disclosure. Only 10 per cent of companies provided consumer-related disclosure. The incidence rates of CSD categories in Malaysian companies show that the employee category is the most important category, as 42% of companies in 1996 and 43% of companies in 2002, disclosed one or more items concerning employees. The incidence for other categories shows: environment category 11% and 17% in 1996 and 2002 respectively, community category 9% and 21% in 1996 and 2002 respectively and product category 16% and 17% in 1996 and 2002 respectively (Haniffa & Cooke, 2005). Saleh, 2009, found that human resources disclosure has the highest disclosure level and environmental disclosure was less disclosed in Malaysian companies. Abu-Baker & Naser, (2000) found that the majority of Jordanian companies have disclosed social responsibility information concerned with human resources. Therefore, it appears that employee information is the most important category from the perspective of quantity of disclosure, which is consistent with various studies in other countries, while it is not the most important category from the perspective of a number of companies that disclose information (figure 6.5). This is not consistent with various studies in other countries. The proportion of companies that make some form of environmental disclosure is 83% in 2005, increasing to 85% in 2006, and this percentage is higher than has been found in some earlier studies in the UK, e.g. the figure of 75% found by Gray et al. (1995a) and 57% found by Brammer & Pawelin (2006), reflecting the increasing interest of UK companies in environmental issues.

Figure 6.5: Disclosing companies for each category



### 3.1 Disclosure Location in Annual Reports

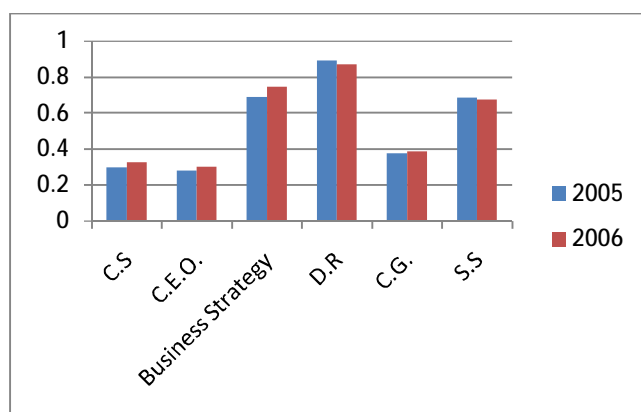
Gray, et al., (1995b) indicated that the disclosure location has been of little value in previous literature, but Yusoff & Lehman, (2005) argued that the study of disclosure location may contribute positively to the literature. To analyse the selection of locations in annual reports, disclosing social responsibility information, the annual reports are divided into seven sections: chairman statement (CS), chief executive statement (CEO), business strategy, directors' report (DR), corporate governance report (CG) and a specific section for corporate responsibility disclosure (SS). Figure 6.6 presents the disclosure locations in annual reports. The findings reflect that the most important location for social responsibility information is the director's report, as 283 companies (89%) show social information in the director's report in 2005 and this percentage decreased in 2006 to 282 companies (87%). This finding is consistent with what has been found in Guthrie & Parker (1990) that the director's report is the most popular location for CSD in the UK. The second most important location for social information is the business strategy section.

With regard to the presence of a specific section for corporate responsibility information in annual reports, 217 companies (68.5%) in 2005 and 221 (67.6%) in 2006 provide a specific section for corporate responsibility disclosure in their annual reports, while 100 companies

(31.5%) in 2005 and 106 (32.4%) in 2006 do not provide this section. Comparing this result with Harte & Owen (1991), who analysed the annual reports of 30 companies and found that 10 reported on environmental matters in a separate section of their annual reports, indicates increasing attention to providing this separate section, in UK companies. This result is consistent, to some extent, with the results of Holland & Foo (2003), which indicated that the separate section is the most noticeable means of disclosure in UK companies (58% of UK companies have done so, compared with only 28% of US companies), and with the study of Yusoff & Lehman, (2005) which indicated that director's report and separate section tended to be the favoured locations for Australian companies and a review of operations and separate section for Malaysian companies. The proportion of companies that provided a separate section for social information in annual reports, reflects the increasing interest in providing a separate section for social responsibility information in annual reports, particularly when compared with Niskala & Pretes, (1995), who show that 14.7% of their sample of Finnish companies provided separate sections for environmental disclosure in annual reports in 1987, and this percentage increased to 28% in 1992, and Abbott & Monsen (1979), who presented the location of social disclosure in annual reports of Fortune 500 in 1973 and 1974, and indicated that in 1973, 24.6% of companies provided a separate section for social disclosure in their annual reports and this percentage increased to 29.2% in 1974.

Despite the chairman in most cases being a non-executive director, and it is expected that he will be more interested in corporate responsibility issues, the figures show that the chairman's statement is less interested in social information, as 222 companies (70%) do not present any social information in their chairman's statements in 2005, and in 2006, 218 companies (67%), also do not present social information in chairman's statements. In addition, both chief executive's statements and corporate governance reports are less interested in corporate responsibility information.

Figure 6.6: Disclosure location in annual reports



#### 4. CSD in DIFFERENT SECTORS

To analyse CSD according to different sectors, the sample companies are divided into four categories:

- Industry (manufacturing) sector – this sector comprises the following industries: aerospace & defence, automobiles & parts, beverages, chemicals, construction & building material, diversified industrials, electricity, electronic & electrical equipment, engineering & machinery, food producers & processors, forestry & paper, mining, oil & gas, personal care & household products, pharmaceuticals, real estate, steel & other metals, tobacco and water.
- Financial sector – this sector comprises the following activities: banks, insurance, investment companies, life assurance and speciality & other finance.
- Services sector – this sector comprises the following activities: business support services, computer software services, gas distribution, health, information technology, leisure, entertainment & hotels, media & photography, packaging, restaurants, pubs & breweries, support services, telecommunication services, transport and travel & leisure.
- General retailers sector – this sector comprises the following activities: food & drug retailers and general retailers.

Table 6.4 provides the average score of disclosure variables according to different sectors. Generally, it is expected that, based on previous literature, the industrial companies could produce a higher quantity of social disclosure. Contrary to this expectation, Chambers et al. (2003) expected the services sector to be more associated with CSR than the agricultural and industrial sector, because services companies tend to be more conscious of their customer image.

Table 6.4: Analysis of CSD in different sectors

Sector	financial		General retailers		Industry		Services	
Year	2005	2006	2005	2006	2005	2006	2005	2006
No. Of companies	65	68	21	22	136	143	95	94
CSDarp	3.08	3.43	3.61	4.62	4.89	5.66	3.95	4.45
CSDars	74.15	82.03	83.38	113.09	121.62	137.66	97.87	111.39
CSDarpp	0.03	0.03	0.05	0.05	0.05	0.05	0.04	0.04
CSDarq	0.49	0.50	0.43	0.46	0.42	0.5	0.43	0.41
CSDsa	10.21	14.83	21.86	20.32	17.71	17.11	17.25	14.47
CSDsaq	0.25	0.29	0.24	0.36	0.47	0.44	0.19	0.21
CSDt	12.66	17.17	25.47	24.93	22.09	22.41	20.11	17.84
CSDty	0.73	0.63	0.67	0.83	0.87	0.87	0.61	0.6
SA								
0	45(69.2%)	46(67.6%)	13(61.9%)	12(54.5%)	76(55.9%)	76(53.1%)	61(64.2%)	65(69.1%)
1	20(30.8%)	22(32.4%)	8(38.1%)	10(45.5%)	60(44.1%)	67(46.9%)	34(35.8%)	29(30.9%)
CSDsaq								
0	9(45%) <sup>36</sup>	9(40.9%)	4(50%)	4(40%)	20(33.3%)	27(40.3%)	23(67.6%)	18(62.1%)
1	7(35%)	8(36.4%)	3(38%)	4(40%)	19(31.7%)	19(28.4%)	5(14.7%)	4(13.8%)
2	4(20%)	5(22.7%)	1(12%)	2(20%)	21(35%)	21(31.3%)	6(17.6%)	7(24.1%)

With regard to the quantity of social disclosure in annual reports, the industrial companies provide a higher quantity, and financial companies, a lower quantity. The consistent results in both 2005 and 2006 show that industrial companies produce an average quantity of disclosure of 121.62 sentences in 2005, increasing to 137.66 sentences in 2006; services companies have an average quantity of 97.87 sentences in 2005 increasing to 111.39 sentences in 2006; the third sector is general retailers with an average of 83.38 sentences in 2005, increasing to

<sup>36</sup> These percentages are calculated according to the total number of companies that produce responsibility reports in each sector.



113.09 sentences in 2006 and the last sector, financial companies with an average of 74.15 sentences in 2005, increasing to 82.03 in 2006 (see Figure 6.7, a and b). Consistent with these results, there are seven financial companies which do not provide any social disclosure in their annual reports while all industrial, general retailers and services companies provide some social information in their annual reports. It appears that due to the nature of their activities, industrial companies could face more public questions about the impact of their activities on the environment and community as a whole, so they provide more social disclosure in annual reports.

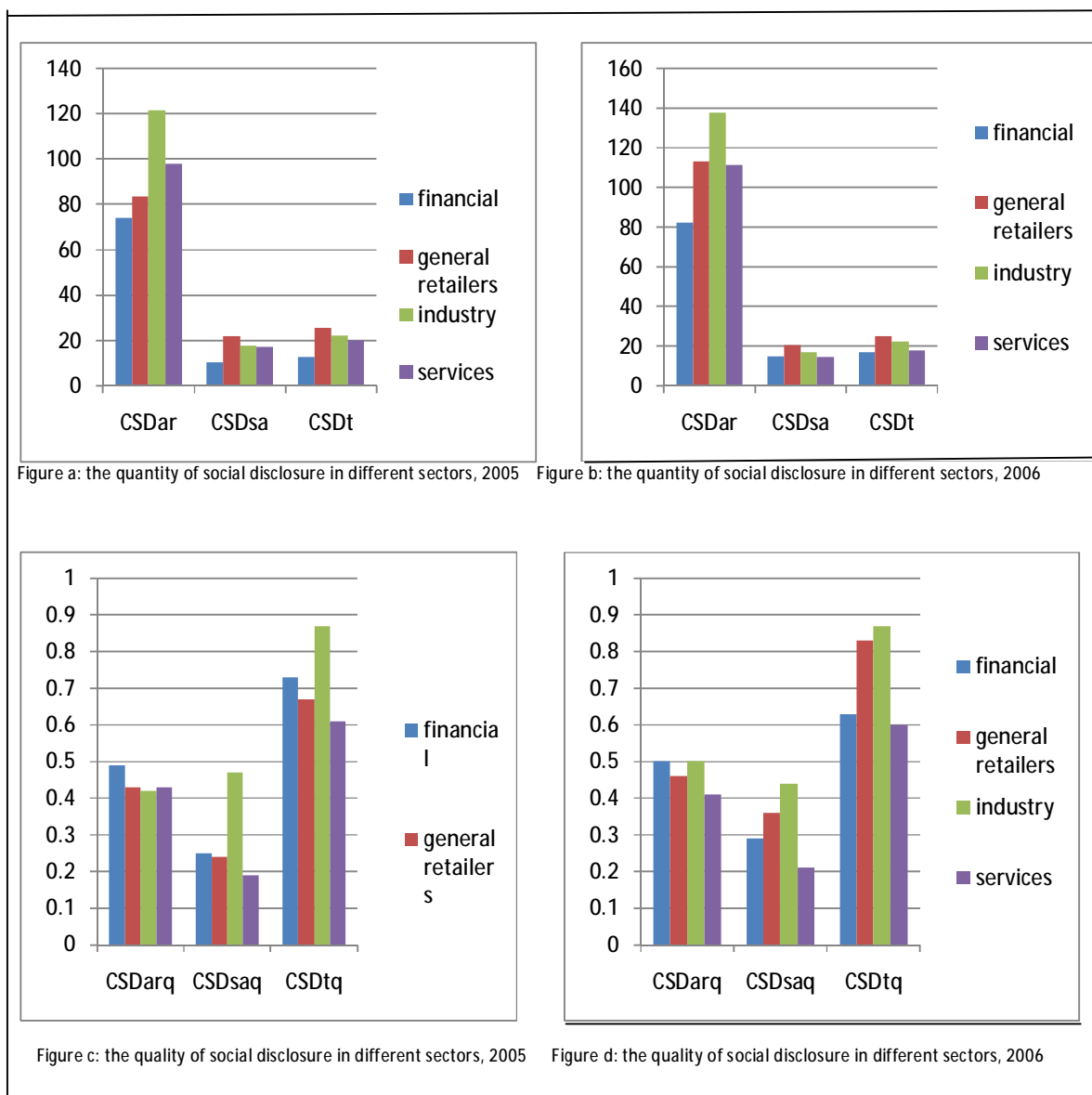
Contradictory to the results of quantity of disclosure, the financial companies provide the best quality of information, with the average quality score of 0.49 in 2005, increasing to 0.5 in 2006. This result indicates that despite financial companies providing less quantity of disclosure than other sectors, they are more interested in providing specific information than other sectors. The second sector is industry companies with the average score 0.42 in 2005, increasing to 0.5 in 2006. There is a similar quality score in both general retailers and services companies in 2005 (0.43), while in 2006, the average score in services companies (0.46) is more than the average in general retailers companies (0.41) (see Figure 6.7, a, and b). It appears that quality score is similar, to a large extent, among different economic sectors, and generally indicates a low quality score in the different economic sectors.

Regarding stand-alone reports (SA), the industrial sector shows a large percentage of companies that produce corporate responsibility reports, as 44.1% of companies in this sector, in 2005, produced such reports, and this percentage increased to 46.9% in 2006. The second sector is the general retailers sector, as 38.1% of companies in this sector produce corporate responsibility reports and this percentage increased to 45.5% in 2006. This is followed by the services sector and the last sector, the financial sector. Despite these percentages, the average number of report pages (CSDsa) show that the general retailers

produced the highest quantity of corporate responsibility reports, with an average of 21.86 pages in 2005, which decreased to 20.32 pages in 2006. The second sector in the quantity of corporate responsibility reports is the industrial sector, followed by the services sector, and the last sector is the financial sector (see Figure 6.7, a, and b), which reflects the lack of interest in CSD in this sector. These results also show that despite the increasing percentage of companies interested in producing responsibility reports between 2005 and 2006, the average number of pages of these reports tended to decrease over the two year-period.

With regard to the quality of corporate responsibility reports (CSDsaq), the average quality score shows that industrial companies have the highest quality score (0.47 in 2005 decreasing to 0.44 in 2006). This result indicates that industrial companies are more interested in using corporate responsibility reporting guidelines and third-party assurance when they prepare their corporate responsibility reports. In more detail: of 60 industrial companies in 2005 that produce responsibility reports, 19 (31.7%) companies used either reporting guidelines or third-party assurance, 21 (35%) companies used both reporting guidelines and third-party assurance, while 20 (33.3%) companies used neither reporting guidelines nor third-party assurance, and these percentages in 2006 are 28.4%, 31.3% and 40.3% respectively. These percentages refer to the fact that the majority of manufacturing companies that produce responsibility reports are making use of, at least, either reporting guidelines or third-party assurance. The services sector has the lowest average score of quality, 0.19 in 2005 increasing to 0.21 in 2006 (see Figure 6.7, c and d).

Figure 6.7: The level of CSD in different economic sectors



#### 4.1 CSD Categories in Different Economic Sectors

For further analysis of CSD in different sectors, the quantity and quality of CSD categories in annual reports can be analysed. Table 6.5 provides an analysis of the incidence of disclosure (the number of companies interested in each disclosure category, in different economic sectors). Tagesson, et al, (2009) present some expectations concerning CSD, in different economic sectors, as the following: Manufacturing companies negatively influence the environment and consequently disclose more environmental information than companies in

other sectors. Finance and services companies disclose little information on social and environmental issues, while mining companies, oil companies and chemical companies maintain a leading position regarding such reporting. Mining, oil and chemical companies emphasise information regarding environmental, and health and safety issues, while the finance and services companies seem to report more on social issues and philanthropic deeds (Tagesson, et al, 2009: 354). Sweeney & Coughlan, 2008, suggest that, based on reviewing available literature, the companies should focus on certain stakeholders more than others, and they classified stakeholders for primary and secondary focus as the following (Sweeney & Coughlan, 2008: 118):

Industry	Primary	Secondary
Financial service	Customers, employees	Community
Pharmaceutical-medical	Community	Employees
Pharmaceutical-health	Customers	Environment
Telecommunications	Customers	Employees
Automobile	Environment	Customers
Oil & gas	Environment	Customers
Retail	Customers, employees	Community

It can be expected that industrial companies are more interested in environmental information, general retailers companies are more interested in customer information and financial and services companies are more interested in both customers and employee information.

Table 6.5: Incidence of disclosure categories in different sectors

	Financial		General retailers		Industry		services	
	2005	2006	2005	2006	2005	2006	2005	2006
	65	68	21	22	136	143	95	94
Env.	44 (67.7%)	45 (66.2%)	15 (71.4%)	19 (86.3%)	123 (90.4%)	131 (91.6%)	81 (85.2%)	85 (90.4%)
Com.	54 (83%)	55 (80.8%)	20 (95.2%)	22 (100%)	131 (96.3%)	137 (95.8%)	92 (96.8%)	91 (96.8%)
Emp.	48 (73.8%)	48 (70.6%)	21 (100%)	22 (100%)	133 (97.7%)	138 (96.5%)	93 (97.8%)	93 (98.9%)
Pro.	4 (6%)	5 (7%)	2 (9%)	7 (31.8%)	76 (55.8%)	78 (54.5%)	36 (37.8%)	34 (36.1%)
Cus.	24 (36.9%)	26 (38.2%)	10 (47.6%)	12 (54.5%)	44 (32.3%)	56 (39.1%)	38 (40%)	43 (45.7%)
Eth.	21 (32.3%)	18 (26.4%)	10 (47.6%)	9 (40.9%)	50 (36.7%)	63 (44%)	45 (47.3%)	49 (52.1%)
Oth.	65 (100%)	57 (83.8%)	20 (95.2%)	21 (95.4%)	131 (96.3%)	137 (95.8%)	87 (91.5%)	88 (93.6%)

The figures in table 6.5 show that community, employees and other information are the most important categories for the different sectors. For the financial sector, it appears that financial companies are more interested in other information category, as 100% and 83.8% of financial companies provide at least one sentence on this information, in 2005 and 2006 respectively. At the same time, these companies are less interested in the product information category. Financial companies also show noticeable attention to community information, indicating that community activities are the most important social responsibility activities for financial companies. These results are not consistent with Hamid, 2004, who found that financial services companies focus on customers and employees as primary stakeholders. For the general retailers sector, it appears that these companies are more interested in employee information, and less interested in product information. This result indicates that employees are the most important stakeholders for retailer companies. The results show that 47.6% and 54.5% of general retailers companies provide at least one sentence of information concerning customers. This result reflects, contrary to expectation, that customers are not considered as important stakeholders for retailer companies. With regard to the industry sector, it appears that employee information is the most important information category for industrial companies, indicating that employees are considered the most important stakeholders for these companies. This result is consistent with the results of Andrew, et al (1989) which

found that the most important category in Malaysian and Singaporean industry companies was human resources information. Andrew, et al (1989) explained the interest in employee information on the basis that to improve working conditions and living standards of workers is an important concern for the governments of these countries. The results show that environmental information is not the most important category for industrial companies, and is not consistent with the result of Tagesson, et al, (2009) which indicated that Swedish companies within the raw-material industry disclose more environmental information. For the services sector, employee information is the most important category for these companies, which is consistent with Saches, et al, 2006, who found that the Communication Company in Switzerland has devoted much attention to employees.

These results can be viewed from the perspective of disclosure categories. Concerning environmental information, the industrial sector is more interested in this category, while the financial sector is less interested in this category. Community and employee information are similar among different sectors and financial companies are less interested in both categories. Regarding product information, the industry sector is more interested in this category and financial companies are less interested in it. With regard to other categories, the results show the same attention to these categories among the different sectors.

Table 6.6 provides an analysis of disclosure categories in annual reports, which present the averages of both number of sentences and quality score for each category. Regarding the quantity of each category, the figures in Table 6.6 show that industrial companies have the largest quantity of all categories, except the customer information category, in which industrial companies provide the lowest quantity of disclosure, while the other sectors provide similar quantities of disclosure information. In all sectors, employee information is considered the most important category. Regarding the quality score, the financial sector provides the best information quality for all disclosure categories.

Table 6.6: CSD categories in different sectors

Sector		Financial		General retailers		Industry		Services	
Year		2005	2006	2005	2006	2005	2006	2005	2006
No. Of companies	65	68	21	22	136	143	95	94	
ENV.(no. Of sentences)	7.23	9.75	10.57	16.05	25.32	32.35	17.44	20.67	
COM.(no. Of sentences)	16.37	15.97	14.57	17.64	16.62	19.06	15.14	15.62	
EMP.(no. Of sentences)	28.05	31.07	27.14	36.23	38.39	41.92	35.15	40.48	
PRO.(no. Of sentences)	0.38	0.75	0.57	3.36	6.45	7.48	3.39	3.17	
CUS.(no. Of sentences)	6.31	6.91	4.81	8.73	3.44	4.62	5.14	7.27	
ETH.(no. Of sentences)	2.2	1.82	4	2.45	4.63	4.27	3.35	3.79	
OTH.(no. Of sentences)	13.61	15.75	21.71	28.64	26.77	27.97	18.27	20.40	
ENV.(quality)	0.51	0.58	0.43	0.53	0.56	0.59	0.52	0.53	
COM.(quality)	0.75	0.75	0.64	0.75	0.68	0.69	0.7	0.68	
EMP.(quality)	0.44	0.45	0.46	0.46	0.47	0.49	0.45	0.43	
PRO.(quality)	0.92	0.69	0.25	0.51	0.61	0.6	0.51	0.52	
CUS.(quality)	0.52	0.50	0.51	0.52	0.51	0.58	0.45	0.52	
ETH.(quality)	0.21	0.38	0.17	0.15	0.23	0.27	0.1	0.12	
OTH.(quality)	0.26	0.31	0.22	0.23	0.25	0.28	0.23	0.22	

## 5. THE RELATIONSHIP BETWEEN DIFFERENT DISCLOSURE VARIABLES

CSD was measured by the use of a selection of variables that represent both quantity and quality of disclosure in both annual and stand-alone reports. To better understand CSD, a correlation test was performed among the different disclosure variables identify the relationships between disclosure variables.

Firstly, is there a relationship between the quantity and quality of social disclosure? The correlation results show that there was weak correlation between the quantity of disclosure in annual reports CSDars and the quality of this disclosure CSDarq ( $\beta$  0.298 and Sig 0.000) in 2005, and this correlation increased in 2006 ( $\beta$  0.455 and Sig 0.000), but it was still weak. This weak correlation between the quantity and quality of disclosure in annual reports reflected that the extension of social disclosure in annual reports did not match, in most cases, with the quality

of this disclosure. With reference to corporate responsibility reports, the correlation results show that there is a medium correlation between the quantity and quality of these reports ( $\beta$  0.571 and Sig.000) in 2005, and a similar result in 2006 ( $\beta$  0.607 and Sig.000). These results show that, to some extent, the companies that produce big corporate responsibility reports are more interested in using both reporting guidelines and third-party assurance. In addition, there is a medium correlation between total quantity and total quality of social disclosure ( $\beta$  0.592 and 0.636 and Sig .000 and .000 in 2005 and 2006 respectively), reflecting that, in general, the relationship between quantity and quality of CSD is not strong.

Secondly, is there a correlation between producing stand-alone reports and the quantity of social disclosure in annual reports? It is expected that producing stand-alone reports could impact on the quantity of social disclosure in annual reports in one of two dimensions. The first one is increasing disclosure in annual reports due to the presence of information, and consequently there is no additional cost for increasing disclosure. The second one is decreasing disclosure in annual reports due to the presence of separate reports and consequently the users can depend on these reports. The correlation results show that in both 2005 and 2006 there is a weak correlation between SA and CSDars ( $\beta$  0.234 and 0.260 and Sig .000 and .000 in 2005 and 2006 respectively). There is also no correlation between the presence of a separate section for corporate responsibility information in annual reports, and producing stand-alone reports ( $\beta$  0.049 and 0.074 and Sig 0.388 and 0.185 in 2005 and 2006 respectively), reflecting that the companies trend of producing corporate responsibility reports is not influenced, to a large extent, by the disclosure in their annual reports. It also appears that despite companies producing corporate responsibility reports, there is also a tendency to disclose social responsibility information in their annual reports, which indicates that annual reports remain an important means of disclosing social responsibility information.



## 6. CONCLUSION

This chapter presented a detailed analysis of CSD practices in UK companies, and addressed a basic question regarding the level of CSD in UK companies. According to empirical figures, it can be argued that UK companies, in particular industrial companies, reveal great interest in CSD. In addition, some points can be concluded from this chapter as follows:

- In general, there is a slight increase in CSD between 2005 and 2006 indicating a small rate of growth of CSD, over this period.
- The majority of companies provide social responsibility disclosure in their annual reports, while most of them do not provide a stand-alone report, indicating that annual reports are still the main means of CSD.
- The quality of social disclosure in annual reports is generally low and the majority of this disclosure comprises only a general statement.
- Approximately half of the companies use neither reporting guidelines, nor an independent auditor when preparing stand-alone reports.
- Contrary to growing interest in environmental issues, employee information is considered the most important information in annual report disclosure.
- The director's report is the most important location for corporate social responsibility information in annual reports.
- Industrial companies provide the highest quantity of social disclosure in annual reports, while financial companies provide the best quality of social information in annual reports.
- The industry sector has the largest proportion of companies interested in releasing corporate responsibility reports, but the general retailers sector has the largest average number of pages for these reports.

- The industry sector is more interested in using reporting guidelines and third-party assurance.

This chapter shows a high level of CSD in the UK, as a developed country, compared with other countries, in particular developing countries. The key question is how to explain the differences in the level of CSD among different countries. This question is the focal point of the next chapter.



# Chapter 7

**DETERMINANTS AT THE COUNTRY LEVEL**

## **Chapter 7**

### **Determinants at the country level**

#### **1. INTRODUCTION**

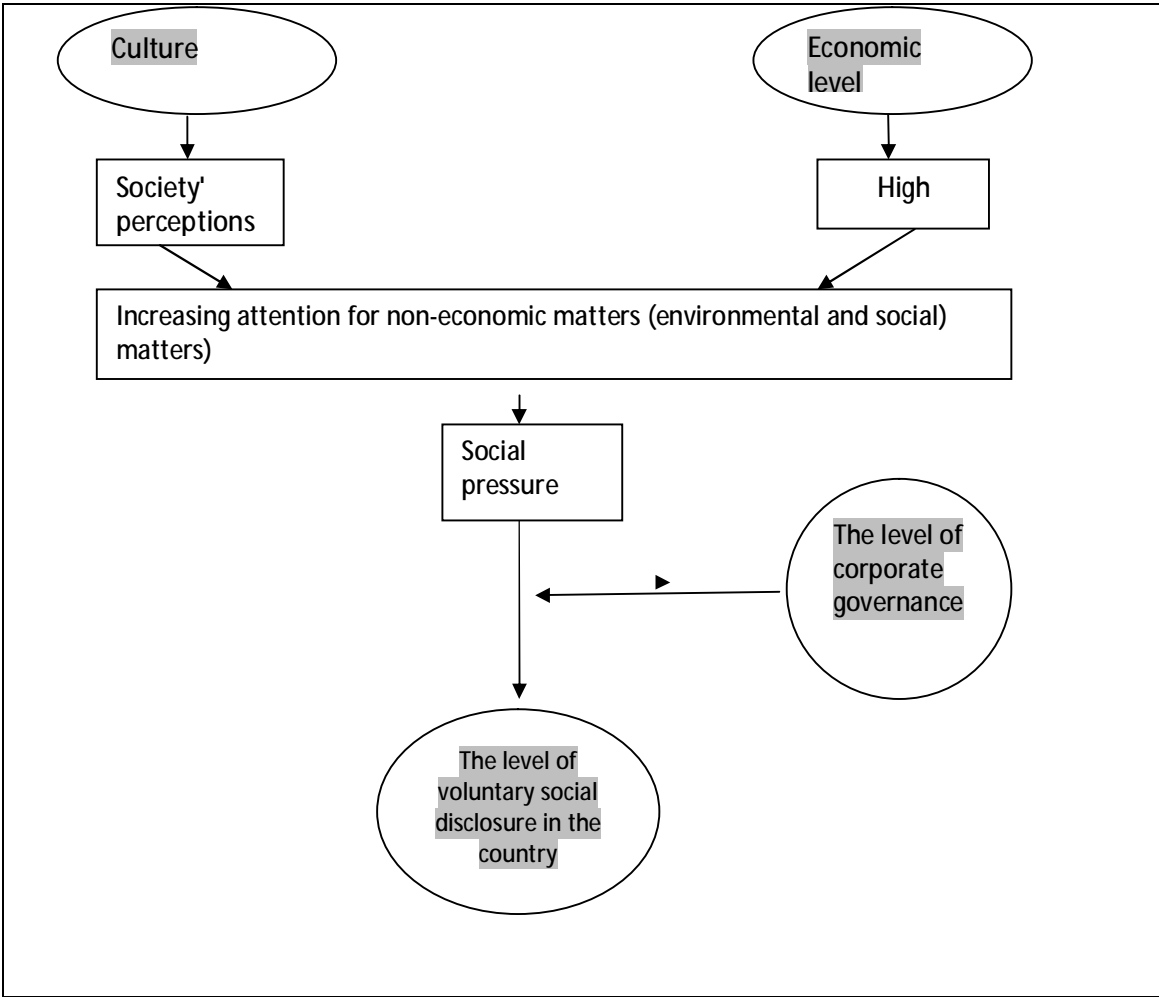
It is argued that the starting point for understanding the phenomenon of CSD is to understand how social pressure is created in a given country. A suggested theoretical framework has two levels of analysis: firstly, analysis of CSD at the country level, and secondly, at the company level. The two levels of analysis are related, as both depend on the concept of social pressure as the main idea that can explain CSD. The purpose of this chapter is to explain the level of CSD in a given country and what causes the differences in this level different countries. The chapter addresses the basic question: What determines the level of social responsibility disclosure at the country level? This chapter is based on the use of statistical methods (correlation and regression) to examine the theoretical model of determinants of CSD at a country level. The importance of this chapter is that it represents a starting point for an integrated framework.

#### **2. HYPOTHESIS DEVELOPMENT**

According to the theoretical framework, the suggested model of determinants of social responsibility disclosure in a given country, based on political-economy theory, consists of societal variables (economic and cultural) that interact with each other in the development of community awareness of the importance of CSR. Both economic and cultural factors determine the extent of the pressure that members of society are able to exert on companies, concerning their social responsibilities. On the other hand, the level of corporate governance

in the country could determine the level of companies' commitment to CSR. The following figure presents a suggested model that will be examined in this chapter:

Figure 7.1: Theoretical framework at the country level



According to the previous model, the following general hypothesis can be advanced:

General hypothesis: The level of social disclosure in a given country can be determined according to the economic level, the level of corporate governance and the cultural values of the country.

Within this general hypothesis, further hypotheses will be examined:

## 2.1 Economic Level

It is argued that the economic level is the most important factor in determining the level of CSD in a given country, as the economic level can influence both the society's attention to the concept of CSR, and the ability of companies to increase their disclosure. Evidence from economic literature indicates that there are influential cross-country differences in economic efficiency (Bushman & Smith, 2001: 297). A high economic level provides opportunities for members of society to draw attention to non-economic matters (social and environmental). Companies in economically developed countries are probably more candid, therefore business performance can be evaluated by society (Gray, 1985, as cited in Zarzeski, 1996: 20).

The level of accounting disclosure seems to be associated with the level of development of the economy (Lee, 1987). The transparency of accounting disclosure increases in more developed economies (Kang & Pang, 2005: 5). Studies provide mixed results concerning the impact of economic development on accounting. Cooke and Wallace (1990), Douppnik and Salter (1995), and Salter (1998) provide evidence on the influence of the economic environment on accounting development. Adhikari and Tondkar (1992) and Williams (1999), however, provide evidence that does not support the influence of the economic development on the development of accounting practices.

The positive association between the economic level and the level of social responsibility disclosure in a given country can be argued based on the following:

- Satisfaction of the primary needs (economic needs) of individuals so that they can draw attention to non-economic (social and environmental) issues and consequently exert pressure on companies concerning these issues, and

- Companies are more likely to have information systems that can provide more disclosure regarding social and environmental issues.

Therefore, the following hypotheses can be formulated:

**Hypothesis 1:** countries with high economic level are more likely to have greater social responsibility disclosure, than those with low economic level.

## 2.2 Cultural Values

Cultural values are important because the traditions of a nation are instilled in its people, and can help explain why certain conditions prevail (Haniffa & Cooke, 2002: 317). All companies exist within a cultural context, and the influences of culture are pervasive and underlie nations' institutional arrangements. Therefore, national culture influences management assumptions, organisational structures and activities (Smith, et al, 2005: 132). Zarzeski (1996) posited that "culture underlies the business activities of a nation". Radebaugh, (1975) stated that culture influences a country's development of accounting objectives and policies. Adams (2002) attested that from the determinants of CSD, one can derive the cultural context of a country. Lee & Hutchison (2005) also mentioned cultural forces as determinants of environmental disclosure. Arnold, et al (2007) found evidence indicates that Hofstede's cultural values of individualism and masculinity are associated with country differences in implementation of code of conduct in European context.

It can be argued that cultural values in a society will determine the extent to which individuals possess sufficient awareness of the fact that:

- The impact of the activities of the company on the environment, and the community as a whole, may be at the same level of importance as the economic impact of those activities, and
- They have the ability to influence companies.

Therefore, the cultural values in a society will determine the level of pressure that the community is able to exert on companies, concerning their social responsibility. Consequently, cultural values can be considered a determinant of the level of social responsibility disclosure at the country level.

To determine a clear and concise measure that can explain a specific country's culture is a difficult task. The study by Hofstede (1980) developed measures for four cultural dimensions, through surveys from over 160 000 IBM employees, across 64 countries. The study by Gray (1988) suggested several hypotheses that relate Hofstede's cultural dimensions, (individualism-collectivism, uncertainty avoidance, masculinity-femininity and power distance) to accounting systems. Some studies have used Gray's theory (1988) to explain the relationship between cultural values and accounting systems (Perera, 1989; Gray & Vint, 1995; Zarzeski, 1996; and Hope, 2003b). Williams, (1999) extends the theoretical framework developed by Gray to include social and environmental disclosures. Based on Gray's theory (1988), the following hypothesis, concerning the impact of cultural values on the level of social responsibility disclosure in a given country, can be formulated:

- a) Individualism–collectivism: This dimension describes the relationship among individuals in a society. Individuals in an individualistic culture look after themselves and their close families, while in a collectivistic culture, individuals belong to groups that look after the individuals (Soares et al., 2007: 280). In individualistic countries, the environment is more competitive and less secretive (Hope, 2003b: 221). It is expected that collectivist societies



provide lower disclosure because their families are in groups (Zarzeski, 1996: 27). The expected relationship between individualism and disclosure is a positive one. In the context of CSD, it can be argued that in individualistic societies, individuals need to control companies, concerning their social responsibilities, which exerts pressure on companies. In collectivistic societies, individuals are less desirous of controlling companies, because there is a stronger relationship between members of these societies.

Thus, the following hypothesis can be formulated:

**Hypothesis 2: Individualistic countries are more likely to have greater social responsibility disclosure, than collectivistic countries.**

b) Masculinity–femininity: In feminine countries, the dominant values are caring for others and quality of life, while in masculine countries, the dominant values are achievement and success (Soares, et al., 2007: 280). Masculine countries are more likely to be growth-oriented and have companies that foster growth activities. Companies in masculine countries are also more likely to disclose higher levels of information (Zarzeski, 1996: 27). The expected relationship between masculinity and disclosure is a positive one. In this context, it can be argued that companies in masculine countries could provide more social information in order to improve their reputations, as they are strongly focused on success in their operations, and they need to improve their reputations. Therefore, the following hypothesis can be formulated:

**Hypothesis 3: Masculine countries are more likely to show greater social responsibility disclosure, than feminine countries.**

c) Power distance: This influences hierarchy relationships in the family and organisational contexts (Soares, et al, 2007: 280). High power-distance countries are likely to have

companies that discourage extensive sharing of information. By contrast, companies in low power-distance countries are likely to disclose higher levels of information to comply with the demands of their constituents (Zarzeski, 1996: 27). The expected relationship between power distance and disclosure is a negative one. In this context, it can be argued that:

**Hypothesis 4: Low power-distance countries are more likely to have greater social responsibility disclosure, than high power-distance countries.**

d) Uncertainty avoidance: This cultural dimension deals with the need for well-defined rules for prescribed behaviour (Soares et al., 2007: 280). In strong uncertainty-avoidance countries, more certain relationships exist; therefore the companies are more likely to disclose less information (Zarzeski, 1996: 27). Thus, the expected relationship between uncertainty avoidance and disclosure is a negative one. In the context of CSD, it can be argued that in weak uncertainty-avoidance countries, fewer certain relationships exist; therefore the need for control of companies, concerning the social impact of their activities, will increase. Consequently, more pressure on companies is expected. The following hypothesis can be argued:

**Hypothesis 5: Weak uncertainty-avoidance countries are more likely to have greater social responsibility disclosure, than strong uncertainty-avoidance countries.**

## **2.3 Corporate Governance**

It is argued that both cultural and economic factors determine the degree of pressure that members of society are able to exert on companies, concerning their social responsibilities. An important question arises: How do companies respond to this pressure? It is expected that companies respond either positively or negatively to this pressure. In this regard, corporate governance practices appear to play an important role in determining companies' responses.

Corporate governance incorporates controlling mechanisms and procedures to ensure that management acts in the interest of shareholders, and this theoretical view can be extended to include all stakeholders, not only shareholders (Hill & Jones, 1992). Thus, good corporate governance practices can ensure that companies act in the interest of all stakeholders. It can be argued therefore, that corporate governance practices in a given country, determine how companies respond to social pressure, and consequently the level of social disclosure in the country.

Hypothesis 6: Countries with a high level of corporate governance are more likely to show greater social responsibility disclosure, than countries with a low level of corporate governance.

### **3. METHOD**

#### **3.1 The Sample**

The important factor in determining the sample is cultural values data, so the sample is determined according to the available cultural data. The sample therefore consists of 58 selected countries, based on the countries that are mentioned in Hofstede's survey. Data will be collected for a sample of countries over a period of three years: 2004, 2005 and 2006.

#### **3.2 Dependent Variable**

The dependent variable is the level of CSD in a country, measured by the number of companies that publish corporate responsibility reports in a given year, as shown on the website, [www.corporateregister.com](http://www.corporateregister.com). This website provides the world's largest online directory of CSR/sustainability reports with 21,883 reports from 5,416 companies across the world. This website was partnered with some professional organisations in various corporate responsibility survey-projects, such as a collaboration between this site with Newsweek, and

environmental research firms, KLD Research & Analytics and Trucost (which were extensively used in previous literature as a source of corporate responsibility data), to establish a green ranking of America's 500 largest companies.

### **3.3 Independent Variables**

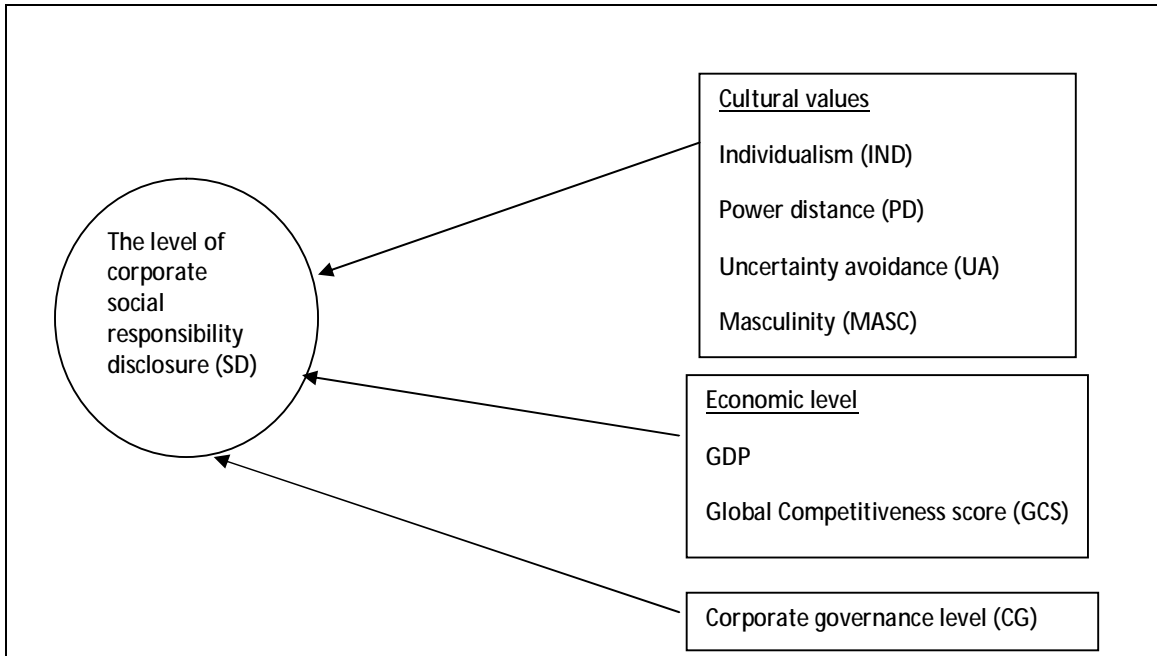
With regard to cultural variables, the definitional difficulties pose a challenge to cross-cultural research in determining convenient measures of cultural dimensions (Soares et al., 2007: 278). The study by Soares et al. (2007) discussed some approaches used in literature to integrate cultural values. They argued that Hofstede's framework provides a simple, practical and usable short cut for the integration of cultures into studies. Arnold, et al (2007) used Hofstede's cultural values in examining the effect of a country's culture on the implementation of a code of conduct in a European context. Zarzeski (1996) argued that the study by Hofstede (1980), is still applicable, because the culture of a country changes slowly, and this study has enhanced awareness of global, cultural characteristics (Zarzeski, 1996: 26). Gehrardy (1990) postulated that Gray's theory does not provide a satisfactory explanation of the relationship between accounting and cultural dimensions. Eddie (1991) and Chanchani & Willett (2004) provided support for Gray's theory. Salter & Niswander, (1995) empirically tested the impact of cultural values on accounting practices across different countries. Their findings indicated that Gray's model has a significant, explanatory power, and they contend that Gray appears to have provided a workable theory to explain cross-national differences in accounting structure and practice, which is particularly effective in explaining differential financial-reporting practices. The cultural variables will be measured by Hofstede's cultural values. Hofstede's Cultural values for Egypt are based on study of Brown & Humphreys (1995).

With regard to the economic level, it will be measured based on two indicators. The first indicator is gross domestic product (GDP), as measured by the International Monetary Fund, (2006). GDP is considered a common measure for the economic level, as cited in previous literature. Bushman & Smith (2001) stated that economic literature has developed empirical proxies for examining cross-country economic performances, and from these proxies, GDP. The second indicator is the global competitiveness score (GCS), as indicated in the global competitiveness report published by The World Economic Forum (WEF). Competitiveness is defined as “that collection of factors, policies and institutions which determine the productivity of a country and that, therefore, determine the level of prosperity that can be attained by an economy” (WEF, 2006). The global competitiveness score is based on 12 pillars of competitiveness, that are divided into 3 pillar groups: Basic Requirements (Institutions, Infrastructure, Macroeconomic Stability, Health and Primary Education), Efficiency Enhancers (Higher Education and Training, Goods Market Efficiency, Labour Market Efficiency, Financial Market Sophistication, Technological Readiness, Market Size), and Innovation and Sophistication Factors (Business Sophistication, Innovation). Each pillar is made up of indicators that come from either ‘hard data’, from major international sources, or ‘soft data’, from the WEF-conducted Executive Opinion Survey. When creating the overall score for each country, weighting schemes are applied, based on GDP per capita. The level of corporate governance will be measured by the corporate governance index, provided in the global competitiveness report. The corporate governance index is considered a component of the state of public institutions in the competitiveness report. In 2004, the WEF introduced new questions on corporate governance, in its survey to calculate global competitiveness rankings. Some of these questions deal with institutional and legal issues (protection of minority shareholders), and others with company-specific factors (control of corporate boards). The results reflect the level of corporate governance in each country.

### 3.4 Specific Model

The following figure presents the determinants model:

Figure 7.2: The determinants at the country level model



To examine the ability of theoretical model to explain the level of CSD in a given country, the following regression model can be used,

$$SD = \beta_0 + \beta_1 UA + \beta_2 IND + \beta_3 MASC + \beta_4 PD + \beta_5 GDPLOG + \beta_6 CG + \varepsilon$$

Where;

SD	The level of social responsibility disclosure in a given country
UA	Uncertainty avoidance
IND	Individualism
MASC	Masculinity
PD	Power distance
GDPLOG	Log. of Gross Domestic Product for each country
CG	The level of corporate governance

## 4. RESULTS

### 4.1 Descriptive Statistics

Table 7.1 presents descriptive statistics for the sample covering a period of three years.

Table 7.1: Descriptive statistics

	Min.	Max.	Mean	Std. deviation	Skew.	Kurt.
Part 1: 2004						
SD	.00	285.00	32.6034	61.25642	2.666	7.254
UA	8.00	112.00	67.7241	23.50796	-.613	-.235
IND	-12.00	91.00	41.7241	24.53626	.285	-.708
MASC	5.00	95.00	52.7069	17.77640	-.603	.427
PD	11.00	104.00	55.1034	20.17615	.078	.072
CUL	118.00	288.00	217.25862	36.30986	-.732	.580
GDP	615.43	55500.23	17049.666	15809.67	.641	-.898
GCS	3.17	5.95	4.6187	.76197	-.200	-1.044
CG	2.90	6.10	4.7673	.61953	-.144	.402
Part2: 2005						
SD	.00	307.00	39.5000	67.66280	2.490	187
UA	8.00	112.00	66.8148	24.12708	-.504	-.413
IND	-12.00	91.00	42.0000	25.42321	.243	-.879
MASC	5.00	95.00	51.5741	17.91342	-.487	.393
PD	11.00	104.00	55.2593	20.91509	.052	-.142
CUL	118.0	288.00	217.25862	36.30986	-.732	.580
GDP	705	64193	18370.31	16817.92	.677	-.645
GCS	3.01	5.94	4.4963	.78332	-.107	-1.099
CG	2.93	6.35	5.0144	.94838	-.507	-.797
Part 3: 2006						
SD	0	350.00	44.91	76.961	2.472	6.103
UA	8	94	59.85	25.822	-.625	-.757
IND	-12	91	42.00	25.423	.243	-.879
MASC	5	95	51.57	17.913	-.487	.393
PD	10	95	53.52	20.692	-.145	-.276
CUL	118.00	288.00	217.25862	36.30986	-.732	.580
GDP	769	71674	19814.637	18157.58	.732	-.427
GCS	3.660	5.810	4.74115	.669898	.071	-1.461
CG	2.38	6.05	4.5388	.89237	-.273	-.679

With regard to CSD at a country level, the findings indicate that there is an increase in the average number of companies that publish stand-alone reports (32.6, 39.5 and 44.9 over the three years respectively) reflecting an increase in the level of CSD over time. What confirms this notion is that the number of countries that reveal no interest in social disclosure at all (SD =0) has decreased during the three-year study from 14 to 13 to 12 countries respectively. It is clear that the number of companies that publish corporate responsibility reports is increasing over time, where the maximum number of companies increased from 285 in 2004, to 307 in 2005 and to 350 in 2006. At the same time, it appears that the increase in the number of

companies which published corporate responsibility reports is focused on some countries only, while others are still not interested in this disclosure, whereas a minimum number of companies remain stable over time. The minimum disclosure score (0) reflects the fact that there are some countries that reveal no interest in CSD. Large values of standard deviation for SD during the three years, mean that the data is widely spread, reflecting the noticeable differences in the level of social disclosure among different countries. Significant values of both skewness and kurtosis, also confirm this dispersion of data. The values of standard deviation, skewness, and kurtosis reflect that the SD variable lacks the normal distribution, and this conclusion can be statistically examined by the Kolmogorov-Smirnov test (K-S) and Shapiro-Wilk (S-W) test. The following table presents the results of normality tests:

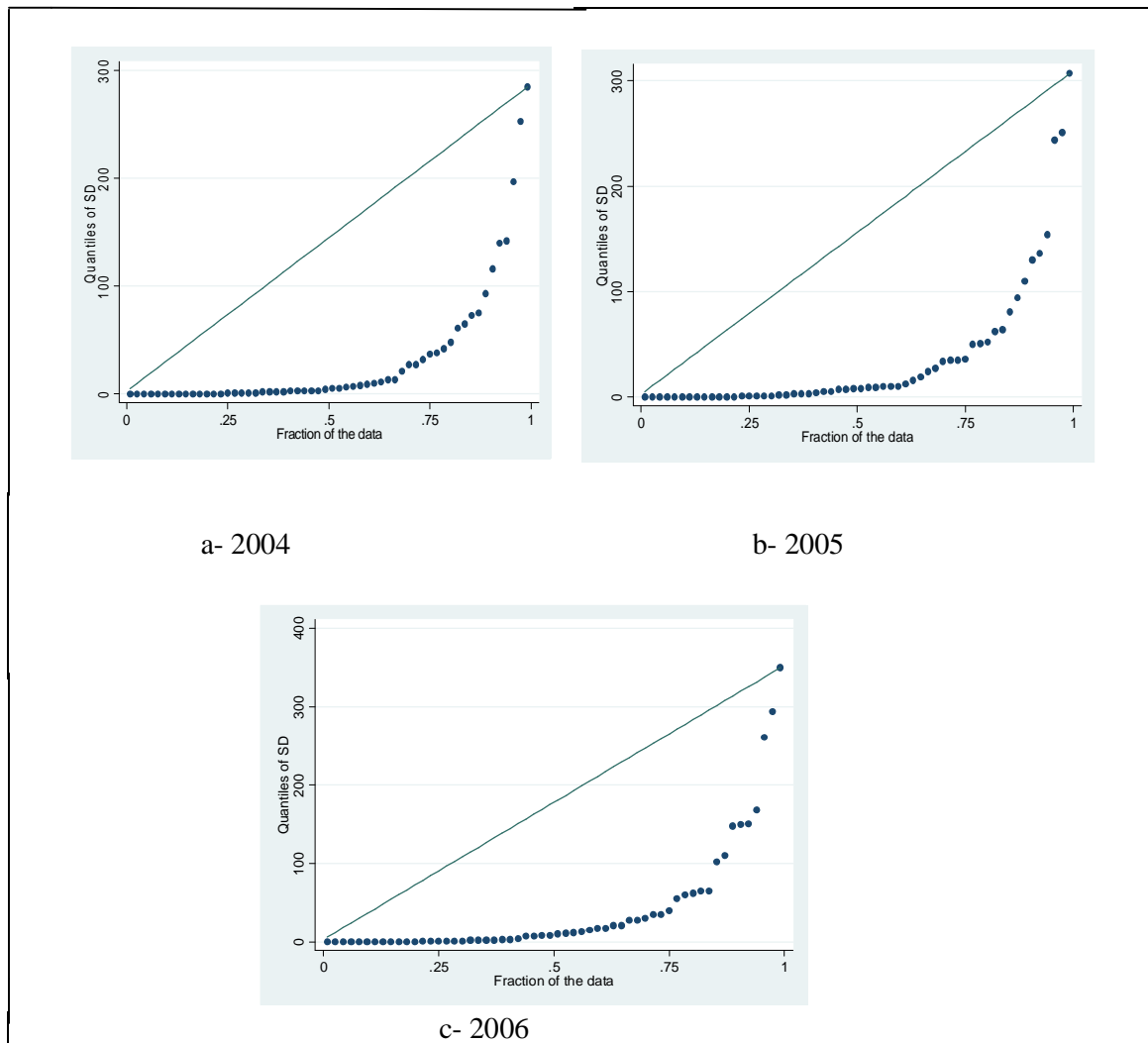
Table 7.2: The results of normality test of social disclosure at a country level

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SD (2004)	.298	58	.000	.593	58	.000
SD (2005)	.289	58	.000	.610	58	.000
SD (2006)	.289	58	.000	.610	58	.000

Both tests are significant, indicating that data of social disclosure at a country level has non-normal distribution. The following figure indicates the distribution of social disclosure variables over three years:



Figure 7.3: Graphically distribution of SD



The figure shows a low level of CSD in the majority of countries in the sample, with a smaller number of companies that produce corporate responsibility reports in the majority of countries. Frequencies analysis confirm this notion, which reveals that in 2004, 14 countries show no social disclosure at all ( $SD = 0$ ), and 35 countries have less than 10 companies that produce corporate responsibility reports. The figures for 2005 are 13 and 32 countries, and in 2006, 12 and 29 countries. It is evident that there are large gaps among countries regarding the level of CSD.

With regard to cultural dimensions, the cultural values (UA, IND, MASC, and PD) are stable over the three-year period because of the use of Hofstede's cultural values. The values of cultural variables show that there are wide ranges for each cultural variable, which indicate that cultural diversity has been achieved in this sample. Values of standard deviation show that cultural scores tend to be distributed normally around the mean score. With regard to the economic-variable global competitiveness score (GCS) each country is scored on a scale of 1 to 7, where 7 is the best score. In 2004, GCS ranged from 3.17 to 5.95 compared with a range from 2.5 to 5.95 for all countries in the index, which reflects the economic diversity in this sample. In 2005, GCS ranged from 3.01 to 5.94 compared with a range from 2.37 to 5.94 for all countries in the index, and in 2006, this variable ranged from 3.66 to 5.81 compared with a range from 2.5 to 5.81 for all countries in the index. The numbers of minimum and maximum also indicate the economic diversity in the sample

With regard to the corporate governance variable (CG), the minimum score over three years (2.90, 2.93 and 2.38) is considered a mean score for governance level. The average corporate governance score also indicates, in general, a high level of corporate governance in the sample. The low values of standard deviation reflect that the corporate governance score is normally distributed.

For more analysis of data, the countries sample is divided into developed and developing countries using the classification of the IMF (2006). The sample contains 33 (56.9%) countries that can be classified as developing countries and 25 countries (43.1%) classified as developed countries. Table 7.3 provides descriptive statistics of two types of countries (developed and developing).

Table 7.3: Descriptive statistics according to economy type

Variables	2004				2005			2006		
	Min	Max	mean		Min	Max	mean	Min	Max	Mean
SD:	0	0	48	5.3571	0	64	6.7333	0	65	7.9667
	1	0	285	72	2	307	77.28	1	350	87.48
UA:	0	13	101	71.7857	13	101	71.7857	13	101	71.7857
	1	8	112	60.5833	8	112	60.5833	8	112	60.5833
IND:	0	-12	65	26.6429	-12	65	26.6429	-12	65	26.6429
	1	17	91	60.9583	17	91	60.9583	17	91	60.9583
MASC:	0	21	73	52.75	21	73	52.75	21	73	52.75
	1	5	95	51.0833	5	95	51.0833	5	95	51.0833
PD:	0	35	104	65.8214	35	104	65.8214	35	104	65.8214
	1	11	74	42.6250	11	74	42.6250	11	74	42.6250
GCS:	0	3.17	5.21	4.0646	3.01	4.99	3.9487	3.66	5.11	4.213
	1	4.27	5.95	5.2533	4.21	5.94	5.116	4.33	5.81	5.314
CG:	0	2.9	5.4	4.3964	2.93	5.75	4.3863	2.38	5.16	3.9977
	1	4	6.1	5.2	4.7	6.35	5.7224	3.66	6.05	5.1424

Where 0 developing country and 1 developed country

The descriptive statistics show a clear variation in most variables between the two types of countries. There is a clear difference in the level of social responsibility disclosure between the two types of countries, in which the average level of disclosure in developing countries is 5.36, 6.73, and 7.97 over the three years respectively, against 72, 77.28, and 87.48 for developed countries over the three years. These figures confirm the previous notion that there are large gaps among different countries regarding the level of CSD. It is clear that there is an increasing level of disclosure over time, in both developed and developing countries. This noticeable variation between developed and developing countries reflects the view that social responsibility disclosure is a Western phenomenon. With regard to cultural variables, the results suggest there is cultural diversity in two types of countries in the sample. The clear cultural difference between developed and developing countries is related to cultural-dimension individualism (the average score of IND is 26.64 and 60.95 for developing and developed countries respectively). This clear difference in the individualism score between

the two types of countries reflects the variance in the degree of competitiveness within the communities in each type of country. The average score of IND in developed countries reflects, as expected, a higher degree of competitiveness in the communities in developed countries, than exists in developing countries. There is a clear variation in both GCS and CG between developed and developing countries and it is apparent that both variables are related. This relationship between the two variables may be due to the use of World Economic Forum scores for both global competitiveness and corporate governance.

## **4.2 Correlation Results**

Table 7.4 presents the results of both parametric and non-parametric correlation tests between the level of social responsibility disclosure and cultural values, and economic level and the level of corporate governance.

Table 7.4: Correlation results

Panel a: Pearson correlation results					
Part 1:2004	SD	Part 2:2005	SD	Part 3:2006	SD
UA	-.174 .192	-.150 .279		.011 .934	
IND	.620** .000	.628** .000		.611** .000	
MASC	.234 .077	.280* .040		.275* .044	
PD	-.308* .019	-.306* .025		-.251 .068	
CUL	.250 .059	.263* .046		.279* .034	
GDPLOG	.488** .000	.477** .000		.461** .000	
GCS	.460** .001	.437** .001		.476** .000	
CG	.483** .000	.401** .003		.292* .036	
Panel b: spearman correlation results					
Part 1:2004	SD	Part 2:2005	SD	Part 3:2006	SD
UA	-.275* .036	-.261* .048		-.217 .101	
IND	.621** .000	.630** .000		.607** .000	
MASC	-.047 .724	-.038 .779		-.050 .708	
PD	-.307* .019	-.304* .020		-.297* .024	
CUL	-.026 .846	-.024 .857		-.020 .881	
GDPLOG	.604** .000	.604** .000		.578** .000	
GCS	.608** .000	.583** .000		.616** .000	
CG	.617** .000	.556** .000		.430** .001	

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The parametric and non-parametric correlation results are consistent, to a large extent, and are also largely consistent with the theoretical background, and provide strong evidence to support a general hypothesis. Regarding cultural values, the consistent Pearson and Spearman correlation results show that from Hofstede's cultural values, only individualism (IND)

appears to be positively correlated with the level of social disclosure in a country, indicating that increasing competitiveness in a society is positively correlated with the level of social disclosure in the country. This result suggests that companies in highly-competitive societies use social responsibility strategy as a competitive tool; on the other hand, companies in low-competitive societies feel that there is no importance attached to social responsibility. Power distance (PD) appears to have a weak negative correlation (as expected) with SD. Inconsistent results concerning both masculinity (MASC) and uncertainty avoidance (UA) reflect that both variables are weakly correlated with SD. These findings suggest that the most influential cultural factors on CSD are those factors associated with the degree of competitiveness and the degree of awareness in a society. In addition, the results indicate a weak correlation between the total cultural score for each country (CUL) and the level of social disclosure in a country, reflecting that some cultural dimensions are more strongly correlated with social disclosure, than others.

The Pearson and Spearman correlation results consistently show that the economic level of a country is positively correlated with the level of social disclosure, reflecting, as expected, a high level of CSD in countries with a high economic level. The positive correlation between economic variables (GDPLOG and GCS) and SD can be interpreted in the context of the suggested model, as the economic level in a country affects the degree of awareness of non-economic issues and consequently the importance of corporate social responsibility, and a high economic level provides an opportunity for members of the community to focus attention on non-economic issues. With regard to corporate governance, consistent correlation results show that the corporate governance variable appears to be positively correlated with SD, reflecting that the level of corporate governance in the country affects the degree of commitment to CSR.

### 4.3 Regression Analysis

Regression analysis is conducted to examine the theoretical framework of determinants of social responsibility disclosure, at a country level. Given that the dependent variable (number of companies that publish corporate responsibility reports in each country) is count data, OLS estimation appears to be an inappropriate method. An alternative method is Poisson regression (Long & Freese, 2003). Poisson probabilities are used to model the number of occurrences (counts) of an event. A Poisson distribution has a mean equal to a variance. The problem with Poisson regression is the over-dispersion of data. In Poisson distribution, the mean and the variance are the same. Therefore, the over-dispersion of dependent variable data should be examined to determine whether Poisson distribution is appropriate for dependent variable data, or not. There are two ways to test the appropriateness of Poisson distribution:

First, calculate the variance of data and compare it with the mean of data. The following table presents the values of mean and variance of SD variables:

Table 7.5: Mean and variance of SD

	Mean	variance
2004	32.60	3752.34
2005	36.7931	4357.64
2006	41.8276	5637.61

The variance is nearly 100 times larger than the mean. These figures show, very clearly, the existence of a very high degree of dispersion in the data.

Second, the likelihood-ratio, chi-squared statistic test compares the model with a model taking into account all the possible effects of the variables. If the test is significant, the Poisson regression is not appropriate. The following table presents the results of likelihood-ratio tests over the three-year period:

Table 7.6: Likelihood ratio test

	2004	2005	2006
Goodness-of-fit chi2	968.4075	1293.44	1654.391
Prob > chi2	0.0000	0.0000	0.0000

The test is significant over the three years, indicating that Poisson regression is not appropriate. In addition, the large values of chi-square are another sign that the Poisson regression is not a good choice. An alternative method to Poisson regression is negative binomial regression used with count data that has over-dispersion.

#### 4.3.1 Pooled negative binomial regression results

The negative binomial regression is conducted using panel data. The advantage of panel data regression is that it takes the time effect into account. As Cormier et al. (2005) stated; if an OLS regression for one period provides a picture, panel data provide a sequence of pictures. There are two types of panel data regression: the fixed-effects model and the random-effects model. Statistically, the fixed-effects model is the appropriate model with panel data, but sometimes the random-effects model provides better results. Therefore, the Hausman test is conducted to choose between the fixed and random-effects model.

The results of the Hausman test<sup>37</sup> ( $\chi^2(6) = 9.67$  and  $\text{Prob} > \chi^2 = 0.1393$ ) show that the random-effects model can be used in analysis. The following table provides the results of negative binomial regression with panel data:

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<sup>37</sup> Hausman test examines the null hypothesis that the coefficients estimated are the same in both the random and fixed effects models. Insignificant P value shows that coefficients are the same in both models, and therefore the random effects model can be used (Stock & Watson, 2003).



Table 7.7: Pooled negative binomial regression results

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
UA	-.0067033	.0127129	-0.53	0.598	-.0316202	.0182136
IND	.0317137	.0123388	2.57	0.010	.00753	.0558973
MASC	.0055623	.0108829	0.51	0.609	-.0157677	.0268923
PD	.0211658	.0152421	1.39	0.165	-.0087082	.0510398
GDPLOG	2.058301	.4747462	4.34	0.000	1.127815	2.988786
CG	-.0954789	.0386008	-2.47	0.013	-.1711351	-.0198228
Wald chi2(6)			97.30			
Prob > chi2			0.0000			
Log likelihood			-495.91409			
Likelihood-ratio test vs. pooled: chibar2(01) =	257.45			Prob>=chibar2 = 0.000		

Regression results show that from cultural variables, individualism (IND) has a significant positive association with the level of social disclosure in a country, while other cultural variables (UA, MASC, and PD) have no significant association with the level of disclosure. With regard to the economic variables, it appears that GDPLOG has a stronger positive association with disclosure. The corporate governance variable (CG) has an unexpected negative association with disclosure.

## Discussion

Regression results show that from Hofstede's four cultural dimensions, individualism is positively associated with the level of country disclosure. The association between IND and SD is not strong (coef. .0317137 and P 0.010). The result indicates that countries with cultures displaying more individualism are more likely to disclose high levels of social responsibility information. The cultural dimension IND is focused on the value of success at work, and reflects the degree of competitiveness in society, as a society with a high level of IND would have a high degree of competitiveness. Therefore, a positive association between IND and level of social disclosure in a country suggests that social responsibility disclosure could be used as a part of a competitiveness strategy. This positive relationship between IND and CSD

could reflect that companies in high-competitive countries are more sensitive to social pressure and they are using CSD to establish a good social reputation. On the other hand, despite a low score of IND reflecting stronger social relationships in society and more loyalty for groups, which appears to be closely related to the concept of CSR, a society with a low score of IND provides a low level of SD. This relationship can be explained in the context of the concept of social pressure, as those societies with low individualism are less competitive and their members do not tend to exert pressure on others. There is no significant association between other cultural variables (UA, PD, and MASC) and SD. This result suggests that there is no relationship between the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity, and the degree of acceptance of institutional and organisational authority by individuals and the level of social disclosure in a country.

These results are consistent with previous correlation results, to a large extent, and show that some cultural dimensions are related to disclosure. The results, concerning cultural variables, are consistent to some extent with previous studies that provide evidence on the relationship between Hofstede's cultural variables and levels of disclosure. Each study yields mixed results concerning the impact of the four cultural variables on disclosure. Zarzeski (1996) found that both uncertainty avoidance and masculinity have a significant association. Hope (2003) found that, as predicted, uncertainty avoidance is negatively associated and individualism is positively associated with disclosure, while, contrary to predictions, power distance is positively, and masculinity is negatively, associated with disclosure. The results of previous studies seem to provide evidence about the association between culture and disclosure, but conclusions concerning the four cultural dimensions were found to be inconclusive. These results are also relatively consistent with the results of Williams (1999), who found that uncertainty avoidance and masculinity are associated with CSD.

The results concerning cultural variables support, to a large extent, the general argument that culture has a significant impact on the level of social responsibility disclosure in a given country. With regard to hypotheses concerning the relationship between cultural variables and social disclosure, the results support hypothesis 2, which indicates a positive impact of cultural dimensions of individualism on the level of social responsibility disclosure, while the results provide evidence to reject hypotheses 4 and 5 that refer to the negative impact of cultural dimensions of uncertainty avoidance and power distance on the level of social responsibility disclosure. The results also reject hypothesis 3 that indicates a positive association between the cultural dimension of masculinity and the level of corporate social disclosure in a country.

With regard to the economic variables, regression results appear to strongly support a general argument that the economic level influences social responsibility disclosure. The result shows a strong, positive association between the economic levels measured by log of GDP and the level of social responsibility disclosure (coef. 2.058301 and P 0.000), reflecting that increasing economic levels lead to an increase in the level of social disclosure at a country level. This strong association between economic level and social disclosure reflects the fact that the starting point of interest in CSR is the high level of economics that satisfies the basic needs of members of society. They can then pay attention to other non-economic matters such as the social and environmental role of companies in the society. This result concerning economic level is not consistent with the results of Williams (1999) and Chambers et al. (2003), which found no association between the economic level and CSD. This difference in results, compared with previous studies, may be due to the sample size or the difference in indicators used to measure the economic level. Williams (1999) used the dichotomous measure as developed and undeveloped economies. Chambers et al. (2003) examined the

economic level using two variables, economic performance (GDP per capita) and economic structure (the balance of economic sectors). With regard to hypothesis 5 that points to the positive impact of the economic level on the level of social responsibility disclosure in a given country, regression results tend to support this hypothesis.

Corporate governance variables, contrary to expectation, are negatively associated with disclosure. These results provide evidence to support the general argument that the level of corporate governance in a country influences the level of social responsibility disclosure in that country, but this effect was the opposite of what was expected, as it is a negative impact. However, the association between corporate governance and disclosure is weak (coef. - .0954789). The negative association between corporate governance and disclosure could be explained in the context of what Ho & Wong (2001) suggest that there are two competing viewpoints on the impact of corporate governance on corporate disclosure. One of these is that more governance mechanisms will improve internal control and consequently increase the level of disclosure, to reduce information asymmetry. The second is that additional governance mechanisms will lead to greater monitoring, and the need for disclosure as a form of monitoring, would then decrease. With regard to hypothesis 6 that indicates a positive association between corporate governance and social disclosure, regression results provide evidence to reject this hypothesis.

Table 7.8 summarises the results of the hypotheses. Overall regression results provide evidence that both cultural values and the economic level are positively associated with the level of social responsibility disclosure in a given country, while there is a negative association between this disclosure and the level of corporate governance. These results therefore, provide evidence to support, to a large extent, the general hypothesis that the level

of social responsibility disclosure in a given country is determined according to the economic level, cultural values and the level of corporate governance.

Table 7.8: The results of examining hypotheses

hypotheses	Expected relation	Reported relation	result
1: the relation between economic level and CSD	Positive	Positive	Accept hypothesis
2: the relation between individualism and CSD	positive	Positive	Accept hypothesis
3: the relation between masculinity and CSD	positive	No relation	Reject hypothesis
4: the relation between power distance and CSD	negative	No relation	Reject hypothesis
5: the relation between uncertainty avoidance and CSD	negative	No relation	Reject hypothesis
6: the relation between level of corporate governance and CSD	positive	Negative	Reject hypothesis

#### 4.3.2 More analysis: cross sectional regression results

For further analysis of the regression model, the negative binomial regression test is conducted for each year. The following table presents the regression results for each year:

Table 7.9: cross-sectional Negative binomial regression results

	Coef.	P> z	[95% Conf. Interval]	
Part 1: 2004				
UA	.0054955	0.535	-.0118474	.0228383
IND	.0479828	0.000	.0249642	.0710014
MASC	.0085912	0.279	-.0069688	.0241512
PD	.0138533	0.298	-.0122312	.0399379
GDPLOG	1.077772	0.016	.1981973	1.957347
CG	.0214216	0.959	-.796176	.8390192
LR chi2(6)			50.77	
Prob > chi2			0.0000	
Pseudo R2			0.1183	
Likelihood-ratio test of alpha=0: chibar2(01) = 868.44 Prob>=chibar2 = 0.000				
Part 2: 2005				
UA	.0062767	0.443	-.0097647	.022318
IND	.0457484	0.000	.0247133	.0667836
MASC	.0078053	0.355	-.0087358	.0243464
PD	.019115	0.145	-.0065761	.0448062
GDPLOG	.735333	0.272	-.5763648	2.047031
CG	.30609	0.424	-.4438044	1.055985
LR chi2(6)			45.87	
Prob > chi2			0.0000	
Pseudo R2			0.0985	
Likelihood-ratio test of alpha=0: chibar2(01) = 1080.56 Prob>=chibar2 = 0.000				
Part 3: 2006				
UA	.0117531	0.227	-.0073187	.0308249
IND	.0481588	0.000	.0260042	.0703134
MASC	.0047956	0.578	-.0120839	.021675
PD	.0184122	0.170	-.0079088	.0447332
GDPLOG	1.120346	0.046	.0220596	2.218632
CG	.0008706	0.998	-.6505927	.652334
LR chi2(6)	43.58			
Prob > chi2	0.0000			
Pseudo R2	0.0912			
Likelihood-ratio test of alpha=0: chibar2(01) = 1433.09 Prob>=chibar2 = 0.000				

Cross-sectional regression results are consistent, to a large extent, with pooled regression results. The consistent results over the three years show that from the cultural variables IND has a significant positive association with the level of social disclosure in a country, while other cultural variables (UA, PD, and MASC) have no association with the level of disclosure. With regard to the economic variables, it appears that GDPLOG has a positive association with disclosure in both 2004 and 2006, while there is no association between GDPLOG and SD in 2005. Consistent results over the three-year period indicate that

corporate governance variable (CG) has no significant association with social disclosure. The coefficients' values reveal that the economic level has a stronger effect on disclosure. Cross-sectional regression results seem to provide evidence to support hypotheses H1 and H5, similar to pooled regression results, and to reject other hypotheses. These results confirm the previous pooled regression results concerning both cultural variables and economic variables.

#### **4.3.3 Sensitivity analysis (different measures)**

Three sensitivity analyses are performed using different indicators for the variables in the model. (1) Using the total cultural score for each country as an alternative to using scores for each cultural dimension. Ndubizu & LeBow (2002) examined the country-level determinants of global financial analysts' services, and found that they do not use a separate score for each element of cultural variables, because the analysis and interpretation of the results, using a composite measure, are more straightforward. The results show a positive association between GDPLOG and SD, and a negative association between CG and SD, which are consistent with reported regression results, while there is no significant association between total cultural score and SD, reflecting that social disclosure is associated with some cultural dimensions. (2) Using global competitive scores as an indicator for the economic level. The results show a positive association between IND and SD, and a negative association between CG and SD, which is consistent with reported regression results, while there is no association between the economic levels measured by the global competitiveness score and SD. (3) Using a dichotomous measure for developed and undeveloped economies as an indicator for the economic level. The results indicate that there is a positive association between individualism and the economic level and social disclosure, and a negative association between corporate governance and social disclosure. The positive association between the economic level measured by the dichotomous measure and CSD is consistent with the

general perspectives in previous literature, that CSD is a western phenomenon. In general, sensitivity analysis results are consistent, to a large extent, with reported regression results.

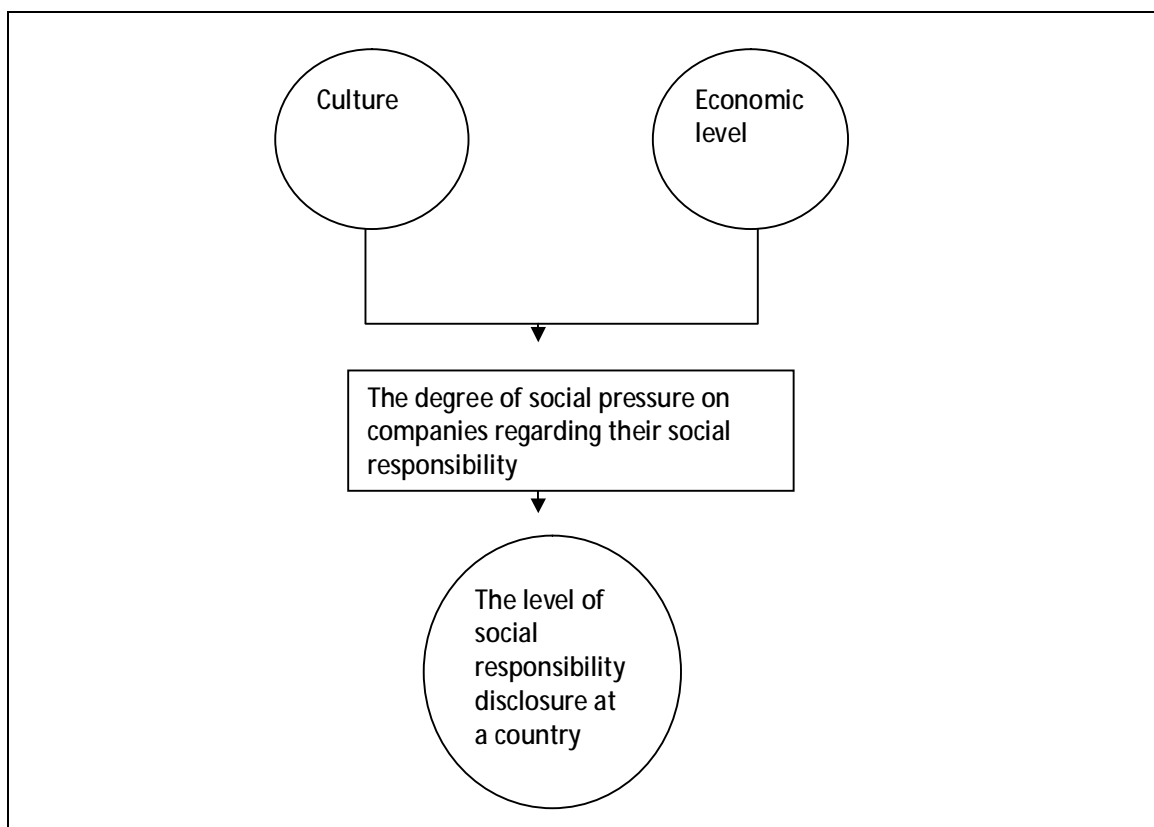
## **5. CONCLUSION**

This chapter examined a proposed model of determinants of social responsibility disclosure, at a country level. The model, based on political economy theory, depends on the idea that the level of social responsibility disclosure in a country is based on two dimensions: firstly, the degree of social pressure on companies with regard to their social responsibility, and this dimension can be determined according to both the economic level and the cultural values in a country; secondly, the degree to which companies will positively respond to this social pressure, and this dimension can be determined according to the level of corporate governance in a country. Empirical results do not support the model as a whole, as the results support the first dimension, while rejecting the second dimension. The regression results supported the association between both the economic level, and cultural dimensions and disclosure, while these results are the opposite of what is expected concerning the association between corporate governance and disclosure. This negative association between corporate governance and social responsibility disclosure could imply that there is no role for companies' responses in determining the level of disclosure in a country. Thus, it can be argued that the level of social responsibility disclosure in a given country is determined according to the degree of social pressure on companies, with regard to their social responsibility. The degree of social pressure in a country will be determined according to the economic level and cultural values of the country.



As a conclusion to this chapter, a theoretical framework of determinants of social responsibility disclosure at a country level can be modified and presented in the following figure:

Figure 7.4: modified theoretical model



Empirical evidence provides an answer to a fundamental question in this chapter. What determines the level of social responsibility disclosure at a country level? The level of social responsibility disclosure at a country level is related to social pressure, which is determined according to the economic level and cultural values of the country. This raises an important question: Is the level of social responsibility disclosure at a company level also related to the idea of social pressure and what determines this level of disclosure? This is the subject of the next chapter, which discusses determinants of social disclosure at a company level.



# Chapter 8

DETERMINANTS OF CSD

## **Chapter 8**

### **Determinants of CSD**

#### **1. INTRODUCTION**

The previous chapter explained that CSD in a given country is related to socio-economic factors in the country. These factors appear to determine the degree of social pressure in the country, with regard to CSR. In the context of the relationship between CSD and social pressure, two important questions are raised. Are all companies facing the same degree of social pressure, and do these companies respond to this pressure at the same level? It can be argued that an answer to the previous questions, determines the level of CSD in a company. To answer these questions, a theoretical framework has been developed based on legitimacy theory.

This chapter makes use of statistical methods (correlation and regression) to examine the theoretical model of determinants of CSD at a company level. The purpose of this chapter is to explain the level of CSD in a given company, and the factors causing the differences in the level of social disclosure among different companies. The chapter addresses the following questions: What are the determinants of CSD in both annual and stand-alone reports? Are these determinants related to both quantity and quality of CSD? Can an accepted framework for CSD determinants be established? Is legitimacy theory providing an appropriate theoretical background to explain CSD?

#### **2. HYPOTHESIS DEVELOPMENT**

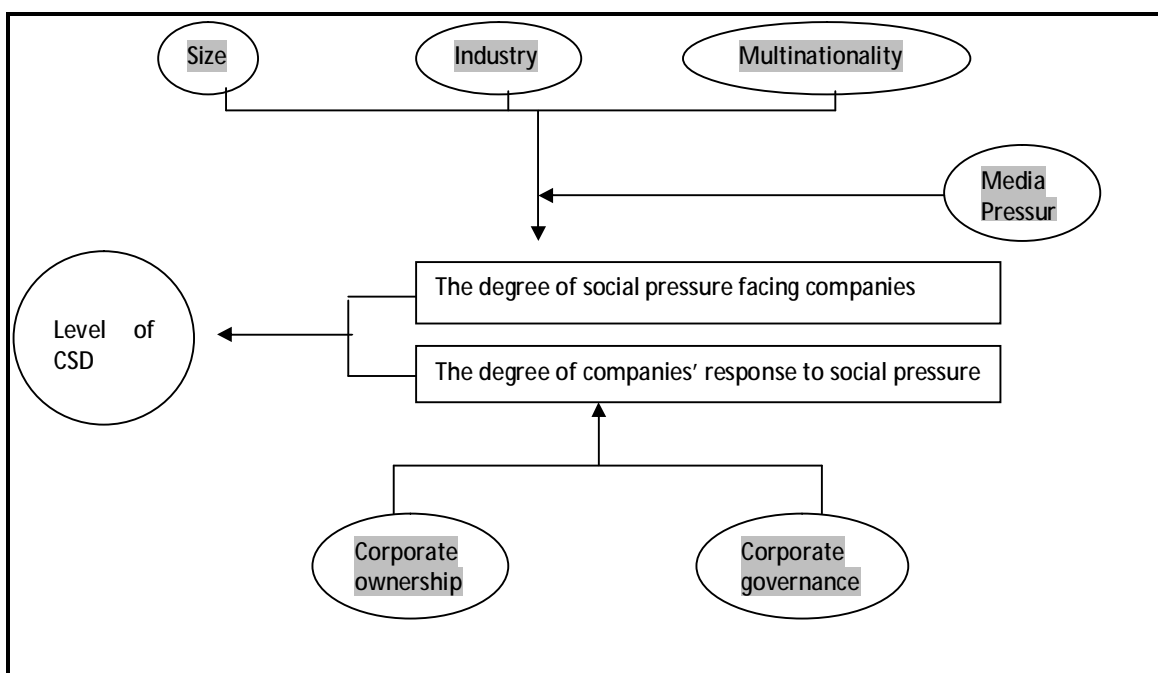
It can be argued that determinants of CSD are those factors which are related to social pressure, and differentiation between two types of factors can be established:

Firstly, factors which can determine the degree of social pressure facing companies. These factors include corporate characteristics (size, industry and degree of multinationality), and media pressure. It can be argued that large industrial companies which have a high degree of multinational activities, and face wide media coverage, have the broader society's attention and consequently face the highest degree of social pressure. Therefore, according to legitimacy theory, these companies are more likely to need to legitimise their activities to a greater extent, so a positive relationship between these factors and CSD is expected.

Secondly, factors which can determine the degree of companies' response to social pressure. These factors include corporate ownership and corporate governance. It can be argued that well-governed companies, with more dispersed ownership, tend to respond positively to social pressure and provide more disclosure.

The following figure presents a suggested framework which will be subject to examination in this chapter:

Figure 8.1: Theoretical framework of determinants at the company level



According to the theoretical framework, the following two general hypotheses can be formulated:

**General hypothesis 1:** Corporate characteristics and media pressure determine the level of social pressure that faces companies, and consequently they determine the level of CSD.

**General hypothesis 2:** Corporate governance practices determine how companies respond to social pressure, and they determine the level of CSD.

Through these general hypotheses, the following sub-hypotheses can be formulated:

## **2.1 Corporate Characteristics**

Corporate characteristics are the predominant factors which are examined as determinants of corporate disclosure in accounting literature. These characteristics are:

### **2.1.1 Corporate size**

Depoers (2000) explains the significant association between corporate size and voluntary disclosure, on the basis that larger companies that can afford increasing costs for voluntary disclosure, tend to employ highly skilled individuals and sophisticated management-reporting systems, and there may be greater demands on larger companies to provide information to analysts and the public. A positive association between corporate size and corporate disclosure is reported in some studies (Riahi-belkaoui, 2001; Ho & Taylor, 2007; Ahmed & Courtis, 1999).

Consistent with legitimacy theory, firm size is considered a determinant of CSD, as larger companies are more visible targets, facing potentially higher political costs, and having more investors and other stakeholders looking for information (Cormier et al., 2005:8; Cormier & Gordon, 2001: 589). Zhu et al. (2008) used survey data collected from 200 Chinese companies to indicate that larger companies have more resources than smaller companies and have more flexibility to devote resources to strategic supply-chain activities. Consequently, corporate size influences the adoption of green supply-chain management practices by

Chinese manufacturers. Previous studies showed consistent results that indicate a positive association between corporate size and CSD, but these results should be carefully considered, because the majority of these studies have concentrated on some sectors only, (often environmentally-sensitive industries) and have excluded financial companies.

Consistent with legitimacy theory, the expected positive relationship between corporate size and CSD is dependent on the view that larger companies receive greater attention from society, and will consequently be subjected to more social pressure. Therefore, the following hypotheses can be formulated:

**Hypothesis 1<sub>a</sub>:** Large companies provide a greater quantity of social responsibility disclosure, than small companies.

**Hypothesis 1<sub>b</sub>:** Large companies provide a higher quality of social disclosure, than small companies.

### **2.1.2 Type of activity**

Husted & Allen (2007) argued that the industry environment has a large effect on corporate adaptation for social strategy. They indicated that one of the key indicators of managerial engagement in social strategy is how managers perceive the terrain of the competitive industry environment. Industries have different degrees of legitimacy, based on a variety of actions and consequences derived from the collective action of industry members. Industry-level legitimacy is determined according to the degree in which the operations and business processes of companies in a given industry, and their products and services offered, are accepted as appropriate and useful by the broader public. For example, the oil industry's reputation has been damaged by highly visible oil-spills and the chemical industry has been attacked in the past by environmental groups, which may have reduced its legitimacy. Many well-established industries have a high level of legitimacy, including sectors such as banking and medicine (Aerts & Cormier, 2006:10). Manufacturing companies rely on economies of

scale of production that may be achieved by close proximity to the marketplace, so they may be located in overseas markets. As a result, such companies are exposed to foreign regulations that may have a positive impact on disclosure (Camfferman & Cooke, 2002: 11).

Consistent with legitimacy theory, the expected association between the type of activities and CSD, is dependent on the view that the type of companies' activities, influences public expectations concerning the role of companies in society, and how these activities influence the environment and the community as a whole. In this regard, it can be argued that manufacturing companies receive greater attention from society, and will consequently be subjected to more social pressure. Therefore, the following hypotheses can be posited:

**Hypothesis 2<sub>a</sub>:** Manufacturing companies provide a greater quantity of social responsibility disclosure, than non-manufacturing companies.

**Hypothesis 2<sub>b</sub>:** Manufacturing companies provide a higher quality of disclosure, than non-manufacturing companies.

### **2.1.3 Corporate profitability**

Profitability is considered a determinant of CSD on the basis that more profitable companies need to be seen as socially responsible (Cormier et al., 2005:8). Singhvi & Desai, (1971) argued that more profitable companies provide more extensive information, because it increases investors' confidence which, in turn, increases management compensation (Singhvi & Desai, 1971, as cited in Ahmed & Courtis, 1999: 38).

Ho & Taylor (2007) stated that theoretical and empirical evidence on the relationship between corporate profitability and disclosure is mixed. On the one hand, it is argued that managers of more profitable companies are more likely to disclose, due to a signalling and/or adverse selection-incentive. On the other hand, managers are likely to have incentives to disclose unfavourable information, to reduce the likelihood of legal liability (Ho & Taylor, 2007: 130-131).

Legitimacy theory implications do not refer to a potentially direct relationship between social disclosure and the financial position of a company. In addition, despite previous literature providing mixed results concerning the impact of corporate profitability on CSD, it tends to provide more support for a non-relationship between them. Given the mixed theoretical and empirical evidence, the following null hypotheses can be argued:

**Hypothesis 3<sub>a</sub>:** corporate profitability has no impact on the quantity of CSD.

**Hypothesis 3<sub>b</sub>:** corporate profitability has no impact on the quality of CSD.

#### **2.1.4 Multinationality**

The degree of multinational activities appears to influence both the expectations concerning CSR, and the level of corporate disclosure. Regarding the impact of multinationality on CSR, Newson & Deegan (2002) argued that, based on legitimacy theory, companies will respond to the expectations of relevant members of the public, and for multinational corporations, this response is not restricted to the home country, but rather to global orientation. In the multinational environment, companies are faced with a potentially divergent home-country, host-country situation, and international pressures that affect their self-regulation strategies (Muller, 2006:189). The international operations of a company have a substantial impact on the formulation and implementation of its business ethical principles, such as codes of conduct (Tulder & Kolk, 2001: 267).

On the other hand, Zarzeski (1996) argued that companies in the international marketplace provide higher levels of disclosure practices, than their domestic counterparts. Depoers (2000) argued that operating in a number of geographical areas, including other countries, increases the amount of information controlled by a company. Moreover, companies are induced to comply with the usual disclosure practices in countries in which they operate. Riahi-belkaoui (2001) stated that there are two reasons why a positive association between disclosure and multinationality might be expected:



- The capital-need hypothesis, which means that much of the impetus for voluntary disclosure by multinational companies is informed by the need to raise capital at the lowest possible cost. The pressure for information associated with global competition for capital, manifests itself in the supplementary voluntary disclosures that multinational companies have been making.
- The multiple-listing hypothesis, which means that multinational companies are generally listed on more than one stock exchange. The companies with multiple listing are more likely to have a greater number of shareholders, which increases monitoring costs. One method of reducing shareholders' monitoring costs, and alleviating a morally hazardous problem, is through disclosure in corporate annual reports.

Previous research provides mixed results on the relationship between multinationality and disclosure. Webb et al. (2008) indicated a positive association between multinationality and disclosure, while Gelb et al. (2008) indicated a negative association between the two. Previous literature concerning CSD revealed little examination of the impact of multinationality on CSD, compared with other corporate characteristics. Toms et al. (2007) and Toms (2008) found no relationship between the number of foreign countries and CSD. Branco & Rodrigues (2008) found no relationship between the ratio of foreign sales and CSD, while Stanny & Ely (2008) found an association between them.

In the context of the impact of multinationality on CSD, it can be argued that due to their geographical extension, multinational companies are more likely to face greater social pressure. This geographical extension creates more pressure from host societies on multinational companies, with regard to their social responsibilities, and the more foreign countries in which the company operates, the more pressure there is on the company. Consequently, the company could increase the level of CSD as a tool to face this pressure, and legitimise its activities, so the following hypotheses will thus be examined:

Hypothesis 4<sub>a</sub>: Companies with more multinational activities will provide a greater quantity of CSD.

Hypothesis 4<sub>b</sub>: Companies with more multinational activities will provide a high quality of CSD.

## **2.2 Media Pressure**

Brown & Deegan (1998) extend legitimacy theory by examining the role of media coverage in increasing the public-policy pressure faced by companies. They provide evidence that a higher level of print-media coverage of environmental issues, increases public-policy pressure by driving public concerns, which in turn leads to greater environmental disclosure.

It is assumed that the media is able to change people's perceptions of some issues. There are some studies which show that the media is able to influence people's perceptions concerning corporate reputation. Hence, Hooghiemstra (2000) argued that management will use annual reports to counteract negative media-coverage.

As noted before, legitimacy theory indicates that differences in social disclosure are a systematic function of differences in public-policy pressures, and these pressures can arise from cultural, political or legal environments (Walden & Schwartz, 1997:127), while media-pressure arguments could be seen as having an influence on the cultural environment (Patten, 2002 a:158).

It can be argued that more attention from the media on companies, leads to more attention from society and consequently, more social pressure. Therefore, the following hypotheses can be formulated:

Hypothesis 5<sub>a</sub>: Companies with more media attention provide a greater quantity of CSD, than those with less media attention.

Hypothesis 5<sub>b</sub>: Companies with more media attention provide a higher quality of CSD, than those with less media attention.

## **2.3 Corporate Governance**

Corporate governance mechanisms affect the information disclosed by the company to its shareholders (Kanagaretnam et al., 2007: 498). Corporate governance practices are basically explained through agency theory. Hill & Jones (1992) state that agency-theory considerations are applied not only to shareholders, but also to all stakeholders (a stakeholder agency-theory). It can be argued that corporate governance mechanisms will define how companies respond to societal pressure concerning their social and environmental responsibilities, and consequently the level of use of CSD, as a tool to face this pressure. The corporate governance mechanisms are involved in determining and monitoring corporate-disclosure policy (Kelton & Yang, 2008: 66), and corporate board characteristics are considered important determinants of corporate governance (Bahgat & Bolton, 2008: 258). Halme & Huse (1997) argued that the role of the board may be linked to the companies' environmental attentions; the environmental groups and corporate activists may ask the board of directors to make their companies behave in a socially acceptable manner, so a board could operate as a sort of "superego" for their companies (Halme & Huse, 1997: 142). The board of directors may lead to greater monitoring and consequently to a high level of CSD, and the degree to which the board will affect CSD, may also depend on the characteristics of this corporate governance mechanism.

### **2.3.1 Board size**

There is a theoretical debate surrounding the size of a board of directors. While some researchers argue that a larger board promotes more effective decision-making and enhances information-processing capabilities, others argue that a larger board leads to less participation among members, and increases the opportunity for manipulation on the part of corporate management (Ho & Williams, 2003: 475). While the board's monitoring capacities increase as the board size (number of members on the board) increases, the incremental costs of

poorer communications, that are often associated with large groups, may offset this benefit (John & Senbet, 1998). In addition, there is no consistent evidence to suggest a relationship between corporate size and voluntary disclosure (Cheng & Courtenay, 2006). Cheng & Courtenay (2006) found that there is no empirical association between board size and voluntary disclosure.

In the context of the expected impact of board size on CSD, Halme & Huse (1997) argued that in a large board, there is a higher probability of a broader range of stakeholders, which indicates that a higher level of environmental attention can be expected (Halme & Huse, 1997: 142). Consistent with this view, it can be argued that increasing the number of directors on the board could provide better communication with the community, and consequently more probability that companies will react positively to social pressure. Given this theoretical and empirical debate, the following hypotheses will be examined:

**Hypothesis 6<sub>a</sub>:** Companies with more directors on the board provide a greater quantity of CSD.

**Hypothesis 6<sub>b</sub>:** Companies with more directors on the board provide a higher quality of CSD.

### **2.3.2 Board composition: non-executive directors**

Barako et al. (2006) argue that non-executive directors are considered a governance mechanism that enhances the board's capacity to ameliorate agency-conflicts between owners and managers. These conflicts may occur in the decision to voluntarily disclose information in annual reports (Barako et al., 2006: 111). Chen (2006) indicates that in the US, non-executive directors are shown to play a more important role in monitoring managers, than executive board directors (Chen, 2006: 290). In addition to monitoring the quality of financial information, non-executive directors can play an important role in determining and monitoring voluntary corporate disclosure (Ajinkya et al., 2005: 344). Anderson & Reeb (2004) argued that independent directors can defend the minority shareholders by protecting

their rights against large-shareholders' opportunism; independent directors play an important role in balancing the interests of competing shareholders and act as an influential governance mechanism in protecting outside shareholders from large shareholders' expropriation (Anderson & Reeb, 2004: 2).

The role of non-executive directors in improved monitoring of corporate boards, suggests that a corporate board will become more responsive to investors, and that inclusion of non-executive directors will improve the company's compliance with the disclosure requirements, which in turn will improve the comprehensiveness and quality of disclosure (Chen & Jaggi, 2000: 286).

Previous research provides mixed evidence on the relationship between disclosure and the independence of the board of directors. For example, Beasley (1996), Chen & Jaggi (2000) and Xiao et al. (2004) find a positive association between disclosure and the independence of the board, while Eng & Mak (2003) and Gul & Leung (2004) find a negative relationship.

It can be argued that the presence of non-executive directors on the board is a tool to link the company with various stakeholders and the community as a whole, and therefore they represent one of the factors that drive the company to deal with the community's concerns regarding social responsibility. Rose (2007) posited that new regulations, requiring more independent directors, are a major step in improving corporate ethics and social responsibility (Rose, 2007: 321). Thus, the increasing percentage of non-executives directors on the board will encourage companies to react positively to social pressure, and consequently to increase the level of CSD. Therefore, the following hypotheses can be formulated:

Hypothesis 7<sub>a</sub>: the quantity of CSD is positively related to the number of non-executive directors on the board.

Hypothesis 7<sub>b</sub>: the quality of CSD is positively related to the number of non-executive directors on the board.

### **2.3.3 The presence of the corporate responsibility committee**

The existence of the corporate responsibility committee as a board committee is, in itself, a sign of the company's interest in social responsibility. This committee reflects the company's desire to perform its activities in line with social-responsibility guidelines and rules. It can be argued that the presence of the corporate responsibility committee, as one of the board committees, is one of the factors that may drive companies to react positively to social pressure concerning the company's social responsibility and, consequently, to increase the level of CSD.

**Hypothesis 8<sub>a</sub>:** The quantity of CSD is positively related to the presence of the corporate responsibility committee as one of the board committees.

**Hypothesis 8<sub>b</sub>:** The quality of CSD is positively related to the presence of the corporate responsibility committee as one of the board committees.

### **2.3.4 Corporate ownership**

Agency theory would argue that ownership-diffusion is positively related to corporate disclosure. The more diffuse the ownership, the more there is corporate disclosure because this helps owners to monitor the behaviour of management. When ownership is less diffuse, less monitoring is required. A negative relationship between block ownership and disclosure is reported in previous research (Mitchell et al., 1995; Schadewitz & Blevins, 1998; Kelton & Yang, 2008). This implies that a greater percentage of substantial shareholder-ownership, leads to less need for monitoring and transparent disclosure. Reverte (2009) argues that companies with widely-held shares are more likely to improve their financial reporting policy by using their CSR disclosure; on the other hand, companies with concentrated ownership are less motivated to disclose additional information on their CSR. It can be argued that more ownership-diffusion encourages management to react positively to social pressure, by

increasing the level of CSD to acquire owners' satisfaction, and consequently the negative association between CSD and block ownership.

Hypothesis 9<sub>a</sub>: The quantity of CSD is negatively associated with block ownership

Hypothesis 9<sub>b</sub>: The quality of CSD is negatively associated with block ownership

### **3. METHOD**

#### **3.1 The Sample**

To examine a suggested model for determinants of CSD, UK companies were chosen, as they provide a high level of CSD and consequently more confidence in the results can be anticipated. In the UK, the FTSE all-share index represents 98% of the UK's market capitalisation, with a combined value of approximately £1.28 trillion. The FTSE all-share index is considered to be the best performance measure of the overall London equity market. The FTSE all-share index also accounts for 8.11% of the world's equity market capitalisation<sup>38</sup>. The FTSE all-share is the aggregation of the FTSE 100 index, FTSE 250 index and the FTSE small-cap index. The sample contains both FTSE 100 and FTSE 250 companies over a period of two years, 2005 and 2006. The FTSE 100 index lists the largest 100 companies, and represents about 81% of the market capitalisation of the entire London stock exchange. The FTSE 250 index represents about 13% of the FTSE 100 index. Due to problems in obtaining annual reports from some companies, the final number of companies is 317 in 2005 and 327 in 2006. FTSE companies provide clear corporate characteristics and more probability of applying good governance practices. They also tend to be the subject of high levels of media coverage. All economic sectors were included in the sample, as the study is related to CSD, not only environmental disclosure, and to overcome the limitations

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<sup>38</sup> FTSE the index company, [www.ftse.co.uk](http://www.ftse.co.uk)

of the majority of previous studies which have been restricted to only some economic sectors. Therefore, it can be argued that the results from such a sample are more general.

### **3.2 Dependent Variables**

The dependent variable is the level of CSD. There are six different dependent variables which represent the quantity and quality of CSD in both annual and stand-alone reports. The quantity of social disclosure in annual reports (CSDars) is measured by the number of sentences. The quality of social disclosure in annual reports (CSDarq) will be measured according to a two-point ranking system with value 1, for quantity and specific disclosure, and value 0, for general disclosure. The quantity of a stand-alone report (CSDsa) is measured by the number of report pages. The quality of a stand-alone report (CSDsaq) will be measured as a two-point dummy variable, according to which a report is audited, or not, and prepared using reporting guidelines, or not. The total quantity of social disclosure in both annual and stand-alone reports (CSDT) is measured as the total number of social disclosure pages in both annual and stand-alone reports. The total quality of social disclosure in both annual and stand-alone reports (CSDTQ) is measured as the total quality score of both annual and stand-alone reports. The measurement of CSD was discussed in detail in the methodology chapter.

#### **3.2.1 Validity of disclosure measurement**

The reliability of disclosure measurement was measured in two stages. Firstly, inter-coder reliability was measured in a pilot study (as discussed in the methodology chapter). A second stage examined the validity of disclosure measurement. The categories of CSD index, i.e. environment (env), community (com), employees (emp), product (pro), customer (cus), ethical (eth) and other (oth) are examined for internal consistency, using Cronbach's coefficient alpha to assess the internal consistency of disclosure. Cronbach's coefficient alpha takes on a minimum value of zero and a maximum value of one, and in a general, an alpha of



0.7 or more is acceptable. The Cronbach's coefficient alpha for the seven categories in the disclosure index is 0.71 and 0.69 in 2005 and 2006 respectively. This result is considered acceptable, compared with alpha 0.64 in Botosan (1997), and 0.51 in Gul & Leung (2004). In addition, a correlation analysis among broad categories is performed; the correlation coefficients between disclosure categories (Table 8.1) show that the categories of CSD are correlated. In addition, the correlation between the total disclosure for the same companies (292 companies) in 2005 and 2006 was examined, and the result shows a high, significant correlation between the levels of disclosure in the two-year period ( $\beta$  .798 and Sig .000).

Previous research concerning social disclosure (and voluntary disclosure in general) has reported consistent relationships between the level of disclosure and corporate characteristics, so the correlation analysis was performed between disclosure level and corporate characteristics (as followed by Cheng & Courtenay (2006); Gul & Leung (2004)). The results show that the quantity of disclosure is correlated with corporate size and type of activities ( $\beta$  .379, .279, and Sig .000, .000), and the same applies to 2006 (.459, .254, and Sig .000, .000).

**Table 8.1: The correlation results between CSD categories**

Part 1:2005	Env.	Com.	Emp.	Pro.	Cus.	Eth.	Oth.	Part 2:2006	Env.	Com.	Emp.	Pro.	Cus.	Eth.	Oth.
Env.	1	.415 .000	.507 .000	.267 .000	.034 .552	.282 .000	.312 .000	Env.	1	.357 .000	.440 .000	.334 .000	.053 .335	.306 .000	.233 .000
Com.		1	.376 .000	.190 .001	.137 .015	.182 .001	.294 .000	Com.		1	.287 .000	.084 .128	.114 .038	.137 .013	.351 .000
Emp.			1	.297 .000	.353 .000	.344 .000	.393 .000	Emp.			1	.278 .000	.321 .000	.309 .000	.364 .000
Pro.				1	.042 .455	.403 .000	.202 .000	Pro.				1	.099 .073	.232 .000	.136 .013
Cus.					1	.138 .014	.166 .003	Cus.					1	.045 .415	.217 .000
Eth.						1	.264 .000	Eth.						1	.207 .000
Oth.							1	Oth.							1

### 3.3 Independent Variables

The independent variables are divided into three groups: corporate characteristics, media pressure and corporate governance and ownership. Corporate characteristics variables are corporate size, type of activities, profitability and multinationality. Regarding corporate size, previous literature presents various indicators for its measurement, without theoretical justification for choosing one of them. In the context of CSD, employees are considered important stakeholders and employee information considered an important category of the CSD categories, so it appears that the number of employees is considered an appropriate indicator. Therefore, corporate size is measured by the logarithm of total number of employees. Total assets will also be used as an alternative measure for corporate size. With regard to the type of activity, previous studies used a dummy variable which differentiated between high and low environmental profiles. This measure is considered more convenient in the context of environmental disclosure. In the context of CSD, it appears that differentiation between manufacturing and non-manufacturing companies is more convenient. Therefore, type of activity is measured as a dummy variable with value 1, if the company is a manufacturing company and 0, otherwise. Corporate profitability is measured by the ratio of return on assets (net profit/total assets). The degree of the multinationality variable is measured by two alternative measures: the ratio of foreign sales to total sales, and the number of foreign countries in which the company has subsidiaries, so as to examine the impact of each indicator on CSD.

Media pressure is measured by the number of annual news items related to the social responsibility of the company during the previous five years, from the Factiva database. In addition to normal printed media news, there is a growing trend toward using online news<sup>39</sup>. The concept of media pressure can thus be extended to contain online news related to the

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<sup>39</sup> The percentage of internet usage in the world population in 2008 is 21.9%, which represents an increase in internet usage of 305.5% from the year 2000. In the UK, the percentage of internet usage in 2008 is 68.6%.

company. The media pressure in previous literature is extended by using two alternative variables:

- MPpn: the number of news items related to the company from the Factiva database, based on previous literature
- MPin: the number of online news items related to the company from a Google news search.

Corporate governance variables are: board size, which will be measured by the total number of directors on the board, the existence of a corporate responsibility committee as a board committee, which is measured as a dummy variable with value 1, if there is a committee, and value 0, otherwise, and the independence of this committee, which will be measured as the proportion of non-executive directors on this committee. With regard to non-executive directors, there is a difference between independent non-executive directors and non-independent non-executive directors, so this variable will be divided into two variables:

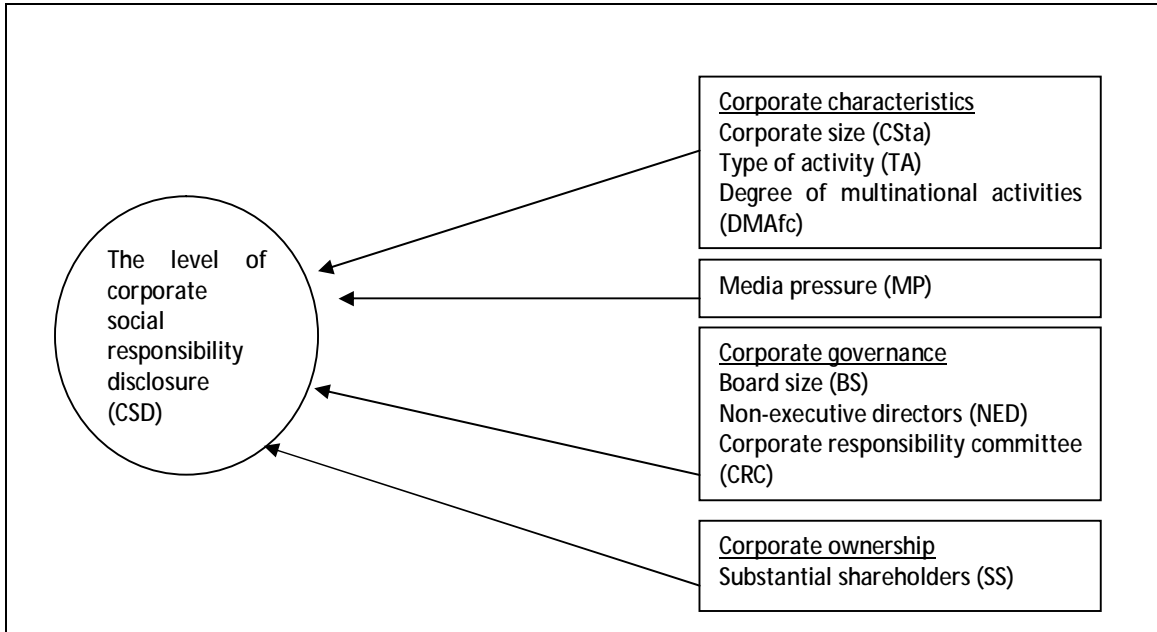
- Non-executive directors (NED), measured by two alternative indicators: the proportion and the number of non-executive directors on the board, to examine the impact of each indicator on CSD
- b- Independent non-executive directors (INED), measured by two alternative indicators: the proportion and the number of independent non-executive directors on the board, to examine the impact of each indicator on CSD.

The corporate ownership variable is block ownership, which is measured by the percentage of shares held by substantial shareholders (shareholders with ownership of 3% or more in company shares).

### **3.4 Specific Model**

The following figure presents the determinants model:

Figure 8.2: The determinants model



To examine the ability of the theoretical model in explaining the level of CSD, the following regression model is used:

$$\text{Dependent variable} = \beta_0 + \beta_1 \text{CSnoe} + \beta_2 \text{PRO} + \beta_3 \text{TA} + \beta_4 \text{DMAfc} + \beta_5 \text{BS} + \beta_6 \text{NEDp} + \beta_7 \text{CRC} + \beta_8 \text{SS} + \beta_9 \text{MPpn} + \epsilon$$

There are six different dependent variables representing various measures of CSD. With regard to independent variables, the following table explains the measurement of variables and data sources:

Table 8.2: The measurement of independent variables

Variables	Description	Measurement	Data source
CSnoe	Corporate size	Log. Number of employees	Annual reports
PRO	Corporate profitability	Return on assets	
TA	Type of activities	Dichotomous classification with value 1, if manufacturing companies, and 0, if otherwise	
DMAfc	Degree of multinational activities	Number of foreign countries in which the companies have subsidiaries	
BS	Board size	Number of directors on the board	
NEDp	Non-executive directors	Proportion of non-executive directors (as a whole) on the board	
CRC	The presence of corporate responsibility committee as a board committee	1, if the company has a corporate responsibility committee as one of the board committees, and 0, otherwise	
SS	Ownership-diffusion (substantial shareholders)	Ratio of shares owned by substantial shareholders <sup>40</sup>	
MPpn	Media pressure (printed news)	The number of annual news items related to the social responsibility for the company during the last five years	Factiva database

## 4. RESULTS

### 4.1 Descriptive Statistics

Descriptive statistics for CSD was discussed in detail in chapter 5. With regard to independent variables, Table 8.3 provides descriptive statistics for these variables and alternative measures for some variables.

<sup>40</sup> Substantial shareholders are shareholders who hold 3% or more company shares.

Table 8.3: Descriptive statistics

	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Part 1:2005							
PRO	316	0	1	.07	.087	2.631	14.489
ASSETS	291	0.1772	924170	1.63E4	82767.947	8.504	79.750
EMPLOY	205	15	410074	1.87E4	42400.240	5.449	40.253
DMA	301	0	1	.42	.351	.108	-1.477
DMAfc	296	0	61	6.81	9.046	2.465	8.378
NEDn	314	0	15	5.96	2.022	.689	1.548
INEDn	309	0	15	4.89	1.799	.915	3.315
BS	314	5	20	9.58	2.615	.809	.974
NEDp	314	0	1	.62	.147	-.147	2.684
INEDp	314	0	1	.50	.164	.142	3.130
CRCI	310	0	1	.08	.242	2.887	7.023
SS	307	3.1	92	31.21	18.094	.664	.139
II	78	41.00	99.69	88.1141	12.73300	-2.191	4.647
MP	289	0	140	6.43	17.409	4.636	25.336
MPI	317	.00	156.00	4.6782	15.49430	6.287	47.142
Frequency	TA	RD	ACI	CRC			
0	201 (63.4%)	304(95.9%)	6(1.9%)	271(85.8%)			
1	116(36.6%)	13(4.1%)	309(98.1%)	45(14.2%)			
Part 2:2006							
PRO	326	0	1	.09	.090	2.407	9.593
ASSETS	310	0.8407	996503	1.86E4	89209.654	8.385	78.921
EMPLOY	220	5	406924	1.86E4	41898.131	5.381	39.777
DMA	308	0	1	.40	.352	.169	-1.528
DMAfc	302	0	61	6.66	9.024	2.441	8.445
NEDn	324	0	15	6.02	1.974	.852	1.817
INEDn	313	0	15	4.95	1.788	.924	3.372
BS	324	3	18	9.53	2.667	.620	.188
NEDp	324	0	1	.64	.144	.196	1.990
INEDp	324	0	1	.51	.181	-.141	2.384
CRCI	320	.00	1.00	.0943	.25436	2.605	5.438
SS	318	3.35	92	32.44	17.942	.614	.155
II	326	.00	1.00	.2166	.38450	1.270	-.301
MP	304	0	172	7.63	21.131	4.755	26.813
MPI	327	.00	188.00	5.1193	17.57459	6.935	58.100
Frequency	TA	RD	ACI	CRC			
0	207(63.5%)	313(96.3%)	3(.9%)	270(83.6%)			
1	119(36.5)	12(3.7%)	319(99.1%)	53(16.4%)			

With regard to corporate characteristics, it appears that the majority of companies in the sample are non-manufacturing companies, as 201 (63.4%) and 207 (63.5%) companies are non-manufacturing companies in 2005 and 2006 respectively, while 116 (36.6%) and 119 (36.5%) companies are manufacturing companies in 2005 and 2006 respectively. Corporate size was measured by two indicators: the average number of employees is 18 685.95 and 18 636.99 in 2005 and 2006 respectively, reflecting the large size of companies in the sample in

general. The average total assets in 2005 are 16293.98 and 18628 in 2006. With regard to the degree of multinationality, the average percentage of foreign sales is 0.42 in 2005 and 0.40 in 2006. Comparing this average with the average 0.23 in Stanny & Ely (2008) for a sample of 500 S&P, reflects a high percentage of multinational activities in the sample. The average number of foreign countries is 6.81 and 6.66 in 2005 and 2006 respectively, compared with the average number of foreign countries of 17.85 in Toms et al. (2007) and Toms (2008). This difference in results may be due to the sample of Toms et al. (2007) and Toms (2008) being focused on multinational companies in some industries. The analysis of these averages according to the type of activity (not reported), shows that the average foreign sales is 0.36 and 0.33 in non-manufacturing companies, compared with 0.53 and 0.52 in manufacturing companies in 2005 and 2006 respectively. The average number of foreign countries is 5.46 and 5.32 in non-manufacturing companies and 9.18 and 9.10 in manufacturing companies in 2005 and 2006 respectively. These figures refer to the clear difference in the degree of multinational activities between manufacturing and non-manufacturing companies in the sample.

Concerning corporate governance variables, the results show that the companies follow good corporate governance mechanisms, such as a high percentage of non-executive directors and independent non-executive directors on the board, separation of the role of chairman and CEO, and independence of the audit committee. The range of board size is between 5 and 20 in 2005 and between 3 and 18 in 2006, with about the same average of board size, 9.58 and 9.53 in 2005 and 2006 respectively. Comparing this average with what has been found in other studies, 7.7 in Singapore (Cheng & Courtenay, 2006), 7.099 in South Africa (Mangena & Chamisa, 2008), 10.34 in the USA (Kanagaretnam et al., 2007) and 9.46 in India (Sarkar & Sarkar, 2008), may reflect that board size in the sample is considered large. This average of board size (9.5) is similar to that found in a PIRC (Pensions and Investment Research

Consultants) survey regarding non-executive directors in FTSE 350 companies (1998), 9.8 directors per board. These similar results reflect that large board size has been traditional practice in UK companies, over time. The average percentage of non-executive directors (NEDp) is 0.62 in 2005, increasing to 0.64 in 2006, and the percentage of independent non-executive directors (INED) is 0.50 in 2005, increasing to 0.51 in 2006, indicating that more than 60% of the directors on the board are non-executive directors, and more than half of the directors are independent. The average of NEDp is considered a high percentage compared with 0.72 in the USA (Kelton & Yang, 2008), 0.06 in Hong Kong (Gul & Leung, 2004), 0.37 in Singapore (Cheng & Courtenay, 2004), 0.413 in South Africa (Mangena & Chamisa, 2008), 0.36 in Spain (Arcay & Vazquez, 2005), 0.74 in India (Sarkar & Sarkar, 2008) and 0.31 in a sample of some European countries (Krivogorsky, 2006). The average independent non-executive directors (INED) is considered moderate, compared with an average of 0.65 and 0.64 in the USA (Kanagaretnam et al., 2007, and Byard et al., 2006 respectively), and 0.54 in India (Sarkar & Sarkar, 2008). As regards the number of non-executive directors and independent non-executive directors, the average number of non-executive directors is 5.96 in 2005, increasing to 6.02 in 2006, and the average number of independent non-executive directors is 4.89 in 2005, increasing to 4.95 in 2006, which is similar to the average number indicated in Brammer & Pavelin (2006), at 4.40. This result is compared with what has been found in the PIRC (1998) survey: the number of non-executive directors has increased over a four-year period from 4.83 to 5.13, reflecting the increase in the number of non-executive directors in UK companies, over time. With regard to the corporate responsibility committee, the majority of companies (271 and 270 in 2005 and 2006 respectively) do not have a CRC as a board committee. The average percentage of shares held by major shareholders in 2005 is 31.21%, and 32.44% in 2006. Only 13 companies (4.1%) in 2005 and 12 companies (3.7%) in 2006 have the same person as a chairman and CEO, compared with 59% from the sample



of Kelton & Yang (2008) in the USA, 54% in Hong Kong (Gul & Leung, 2004), 59% in Spain (Arcay & Vazquez) and 50% in the study by Krivogorsky (2006). In the PIRC (1998) survey, the proportion of companies with combined chairman and chief executive had fallen from 17.8% in 1993 to 11.2% in 1996, and it seems to fall again to 3.7% in 2006, reflecting continuous improvement in this governance practice. There are also only six companies (1.9%) in 2005 and three companies (0.9%) in 2006, which do not have an independent audit committee<sup>41</sup>.

## 4.2 Correlation Results

To examine the level of association between independent variables and each dependent variable, the correlation test is performed. Table 8.4 provides correlation results for 2005 and 2006.

Table 8.4: Correlations results

	Dependent variables											
	CSDars		CSDarq		CSDsa		CSDsaq		CSDT		CSDTQ	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
PRO	-.053	-.093	-.054	-.128*	-.030	-.103	-.034	.003	-.023	-.105	-.039	-.018
	.347	.094	.345	.022	.603	.070	.560	.963	.683	.058	.494	.745
CSnoe	.358**	.408**	.246**	.325**	.343**	.277**	.303**	.336**	.368**	.316**	.336**	.382**
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
TA	.279**	.254**	.045	.145**	.100	.091	.152**	.138*	.133*	.140*	.158**	.170**
	.000	.000	.429	.009	.085	.110	.009	.015	.019	.011	.005	.002
DMAfc	.241**	.205**	.021	.092	.235**	.054	.110	.173**	.231**	.070	.098	.169**
	.000	.000	.715	.113	.000	.364	.067	.003	.000	.225	.094	.003
BS	.350**	.359**	.181**	.262**	.324**	.333**	.357**	.417**	.340**	.366**	.367**	.446**
	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
NEDp	.009	-.041	-.044	-.047	.024	.011	.082	.066	.030	-.002	.064	.065
	.878	.458	.446	.405	.681	.849	.164	.249	.597	.966	.261	.250
CRC	.269**	.290**	.075	.131*	.257**	.293**	.271**	.316**	.276**	.322**	.265**	.321**
	.000	.000	.186	.020	.000	.000	.000	.000	.000	.000	.000	.000
SS	-.196**	-.175**	-.163**	-.162**	-.186**	-.327**	-.224**	-.329**	-.202**	-.332**	-.252**	-.346**
	.001	.002	.005	.004	.002	.000	.000	.000	.000	.000	.000	.000
MP	.015	.366**	.000	.225**	.145*	.347**	.021	.438**	.145*	.374**	.021	.458**
	.792	.000	.997	.000	.013	.000	.720	.000	.011	.000	.707	.000

\*. Correlation is significant at the 0.05 level (2-tailed). \*\*. Correlation is significant at the 0.01 level (2-tailed).

Generally, the results are consistent, to a large extent, between the two years and consistent with the hypothesis. The results show that corporate profitability is not correlated, as

<sup>41</sup> These descriptive results, concerning both role-duality and audit committee-independence, indicate that these variables are the same for all companies in the sample, so these variables were excluded from the empirical model.

expected, with CSD, while other corporate characteristics variables, the corporate ownership variable, and the media pressure variable are correlated with CSD. In addition, corporate governance variables are correlated with CSD, with the exception of the proportion of non-executive directors on the board.

Regarding corporate characteristics variables (PRO, CSnoe, TA and DMAfc), the results, in general, show that corporate characteristics variables are significantly correlated with social disclosure, with the exception of corporate profitability, which appears not to be correlated with disclosure. This result is largely consistent with previous literature which indicates, in most cases, a significant correlation between both corporate size and type of activity, and disclosure, while there is no correlation between corporate profitability and disclosure. With regard to corporate profitability (PRO), consistent results in 2005 and 2006 show that PRO is not correlated with the level of social disclosure in both annual and stand-alone reports. This result is consistent with Hackston & Milne (1996), who used four different measures for corporate profitability and found that none of these four profitability measures is significantly correlated with the amount of disclosure. Corporate size (CSnoe) appears to be highly correlated with quantity and quality of social disclosure in both annual and stand-alone reports. The result is consistent with the results of Hackston & Milne (1996), who used three different measures for corporate size, and found that all size measures were highly correlated with the amount of social disclosure, and consistent with Parsa & Kouhy (2008), who used three different measures of size and found a significant correlation between two measures of size and social disclosure. Type of activity (TA) appears to be less correlated with social disclosure. It appears to be correlated with quantity of disclosure in annual reports (CSDars) and not correlated with quantity of disclosure in stand-alone reports (CSDsa). On the other hand, it appears not to be correlated with quality of disclosure in annual reports (CSDarq) and correlates with quality of disclosure in stand-alone reports. These results show that type of

activity is more correlated with social disclosure in annual reports, than in stand-alone reports, and on the other hand, it appears to be more correlated with quality of disclosure, than quantity of disclosure. Concerning the degree of multinationality (DMAfc), the results appear not to be consistent between the two years. It appears that DMAfc is correlated with CSDars, and weakly correlated with CSDsa. These results show that DMAfc is more correlated with social disclosure in annual reports, than stand-alone reports, and more correlated with quantity of disclosure, than the quality thereof.

Concerning corporate governance variables (BS, NEDp and CRC), the results tend to be consistent over the two years and indicate that both board size (BS) and presence of corporate responsibility committee (CRC) are significantly correlated with the level of social disclosure, while the proportion of non-executive directors (NEDp) is not correlated with CSD. These results show that social disclosure is correlated with some governance mechanisms, in particular those mechanisms that do not fall within the governance guidelines, such as the corporate governance code. In addition, consistent results concerning the corporate ownership variable (SS) appears to be negatively, as expected, correlated with the level of social disclosure. The negative correlation between SS and disclosure indicates that the greater dispersion of corporate ownership is related to a higher quantity of disclosure.

The results concerning media pressure (MP) are not consistent between the two years, and it tends to improve in 2006, and become significantly correlated with disclosure. These results reflect the lack of a clear relationship between media pressure and CSD, and are consistent with Brown & Deegan, 1998, who found a significant correlation between print media and environmental disclosure in annual reports among some industries, and no correlation in others.

These correlation results can be viewed from the perspective of dependent variables. Regarding the quantity of social disclosure in annual reports (CSDars), the consistent results

in 2005 and 2006 show that variables, CSnoe, TA, DMAfc, BS, CRC and SS are significantly correlated with disclosure, while both PRO and NEDp are not correlated with disclosure. The results concerning media pressure (MP) are not consistent between the two years. In 2005 MP is not correlated with CSDars, while it is significantly correlated with CSDars in 2006. These results are largely consistent with previous literature which focused mostly on the analysis of social disclosure in annual reports, and in particular, the analysis of quantity of disclosure, and indicate in general, correlation between both corporate characteristics variables and media pressure, with disclosure. Corporate governance and ownership variables, which did not receive the same attention in previous literature, seem to be correlated with disclosure, with the exception of NEDp. The values of correlation coefficients show that corporate size (CSnoe) has stronger correlation with disclosure (coef. .358 and .408 in 2005 and 2006 respectively). With regard to the quality of social disclosure in annual reports (CSDarq), consistent results over the two-year period reveal a significant correlation between CSnoe, BS, and SS and CSDarq, while there is no correlation between both DMAfc and NEDp, and CSDarq. A weak negative correlation between profitability and CSDarq in 2006 (coef. -.128 and sig .022), supports the assumption that there is no association between social disclosure and the financial condition of a company. Inconsistent results between the two years also indicate a weak correlation between TA, CRC, and MP and CSDarq. Corporate size has a stronger correlation with CSDarq (coef. .246 and .325 in 2005 and 2006 respectively) reflecting a high association between corporate size and the level of CSD in annual reports.

Concerning the quantity of social disclosure in stand-alone reports (CSDsa), consistent results in 2005 and 2006 show that variables CSnoe, BS, CRC, SS and MP are significantly correlated with CSDsa, while variables PRO, TA and NEDp are not correlated with CSDsa. The results concerning the degree of multinational activities are not consistent between the two years, revealing a significant correlation with disclosure in 2005, and no correlation in

2006. These results indicate that the type of activity does not affect the quantity of social disclosure in stand-alone reports, contrary to the significant correlation found with the quantity of disclosure in annual reports. It also appears that the correlation between multinationality and quantity of disclosure in annual reports is clearer than the correlation between multinationality and quantity of disclosure in stand-alone reports; by contrast, the correlation between media pressure and quantity of disclosure in stand-alone reports is clearer than the correlation between media pressure and quantity of disclosure in annual reports. With regard to quality of social disclosure in stand-alone reports, consistent results in 2005 and 2006 show significant correlation between variables CSnoe, TA, BS, CRC, and SS and CSDsaq, while there is no correlation between PRO and NEDp, and CSDsaq. The results concerning both DMAfc and MP are not consistent between the two years, reflecting weak correlation between them and CSDsaq.

With regard to the total quantity of disclosure CSDT, consistent results in 2005 and 2006 reveal significant correlation between variables CSnoe, TA, BS, CRC, SS, and MP and CSDT, while there is no correlation between variables PRO and NEDp, and CSDT. In addition, a weak correlation between DMAfc and CSDT was found. Similar results were found concerning CSDTQ.

#### **4.2.1 Non-parametric tests**

In addition to Pearson correlations, two-tailed t-tests for independent samples were performed to analyse the relationship between some independent variables (TA, DMAfc, BS, CRC and MP) and various dependent variables.

In order to statistically test whether companies with different types of activities (industry and non-industry) report different levels of CSD, the Mann-Whitney U test was performed. Mann-Whitney test results (as shown in Table 8.5) reveal that companies with different

activities have significantly different levels of CSD. These results are consistent, to a large extent, with previous correlation results.

Table 8.5: Mann-Whitney test for type of activity

	CSDars		CSDarq		CSDsa		CSDsaq		CSDT		CSDTQ	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
Mann-Whitney U	8182	8890	9979.5	9822	9593.5	10213	9223.5	10239.5	8627	8748.5	9174.5	9433.5
Wilcoxon W	28483	30418	28894.5	30325	27548.5	28934	27178.5	28960.5	28928	30276.5	28089.5	29936.5
Z	-4.42	-4.18	-1.666	-2.74	-1.8	-1.84	-2.747	-2.207	-3.86	-4.355	-2.720	-3.219
Asymp. Sig. (2-tailed)	.000	.000	.096	.006	.072	0.066	.006	.027	.000	.000	.007	.001

The Kruskal Wallis test was also performed to examine whether companies operating in a varied number of foreign countries, had significantly different levels of CSD. The results for the Kruskal Wallis test (as shown in Table 8.6) show no significant differences between the levels of CSD of companies with operations in a varied number of foreign countries, with the exception of a significant difference in CSDars in 2006. These results are not consistent with the previous correlation results, to a large extent, reflecting weak association between DMAfc and CSD.

Table 8.6: Kruskal Wallis Test for degree of multinationality

	CSDars		CSDarq		CSDsa		CSDsaq		CSDT		CSDTQ	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
Chi-Square	42.26	48.87	29.61	38.60	37.17	28.66	41.41	30.81	37.27	32.20	36.93	36.45
Df	34	34	34	34	34	33	34	33	34	34	34	34
Asymp. Sig.	.156	.047	.683	.269	.325	.683	.179	.577	.321	.556	.335	.355

To examine whether companies with different board sizes (number of directors on the board) have different levels of CSD, the Kruskal Wallis test was performed again. Table 8.7 provides the results for the Kruskal Wallis test. The results confirm that companies with differing numbers of directors on the board provide different levels of CSD. These results are

largely consistent with Pearson correlation results, and support the correlation between BS and CSD.

Table 8.7: Kruskal Wallis Test for board size

	Dependent variables											
	CSDars		CSDarq		CSDsa		CSDsaq		CSDT		CSDTQ	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
Chi-Square	66.07	70.19	30.73	54.58	67.54	51.80	50.96	59.69	79.76	83.07	44.17	75.82
Df	15	15	15	14	15	15	15	15	15	15	15	14
Asymp. Sig.	.000	.000	.010	.000	.000	.000	.000	.000	.000	.000	.000	.000

The Mann-Whitney test was performed again to examine whether the levels of CSD are different between companies that provide corporate responsibility reports, and those which do not. Table 8.8 provides the results for the Mann-Whitney test. The results reveal significant differences in the levels of CSD between companies with corporate responsibility committees, and companies without. These results are largely consistent with Pearson correlation results and support the correlation between CRC and CSD.

Table 8.8: Mann-Whitney test for the presence of corporate responsibility committees

	Dependent variables											
	CSDars		CSDarq		CSDsa		CSDsaq		CSDT		CSDTQ	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
Mann-Whitney U	3490	3999	5179	5433.5	3307	4016	3745	4478	2821.5	3379	4013	4433
Wilcoxon W	4034	40584	40159	40678.5	36718	37427	37156.5	37889	39677.5	39964	38993	39678
Z	-4.6	-5.07	-1.37	-2.601	-4.98	-5.13	-4.721	-5.20	-5.772	-6.07	-3.47	-4.23
Asymp. Sig. (2-tailed)	.000	.000	.170	.009	.000	.000	.000	.000	.000	.000	.001	.000

In addition, the Kruskal Wallis test was performed to examine whether companies with different levels of print media (media pressure) provide different levels of CSD. The results for the Kruskal Wallis test (as shown in Table 8.9) provide evidence that companies with different levels of media pressure, report different levels of CSD. These results are consistent with correlation results to some extent, reflecting an association between MP and CSD.

Table 8.9: Kruskal Wallis Test for media pressure

	Dependent variables											
	CSDars		CSDarq		CSDsa		CSDsaq		CSDT		CSDTQ	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
Chi-Square	74.31	79.09	46.63	57.97	113.638	124.710	103.827	147.631	109.652	121.387	79.828	101.744
df	35	38	35	38	35	38	35	38	35	38	35	38
Asymp. Sig.	.000	.000	.090	.020	.000	.000	.000	.000	.000	.000	.000	.000

### 4.3 Regression Analysis

To examine a suggested framework of determinants of CSD, regression analysis was performed. The regression analysis depends on the formula  $Y = f(x)$ . There are six different dependent variables in regression analysis, and according to the type of dependent variable data, the type of regression test will be determined. Two types of regression test will be used: OLS linear regression and Poisson regression (for count data).

#### 4.3.1 Linear regression diagnostics

Regression models that examine the dependent variables CSDars, CSDarq, CSDT and CSDTQ, can be conducted using the linear regression model, which is considered to be the most common method in disclosure literature. Without verifying that the data have met the assumptions underlying OLS regression, the results may be misleading. A number of assumptions underlie OLS regression; normality, homogeneity of variance (homoscedasticity) and collinearity. These assumptions will be examined based on the data for 2005 and 2006.

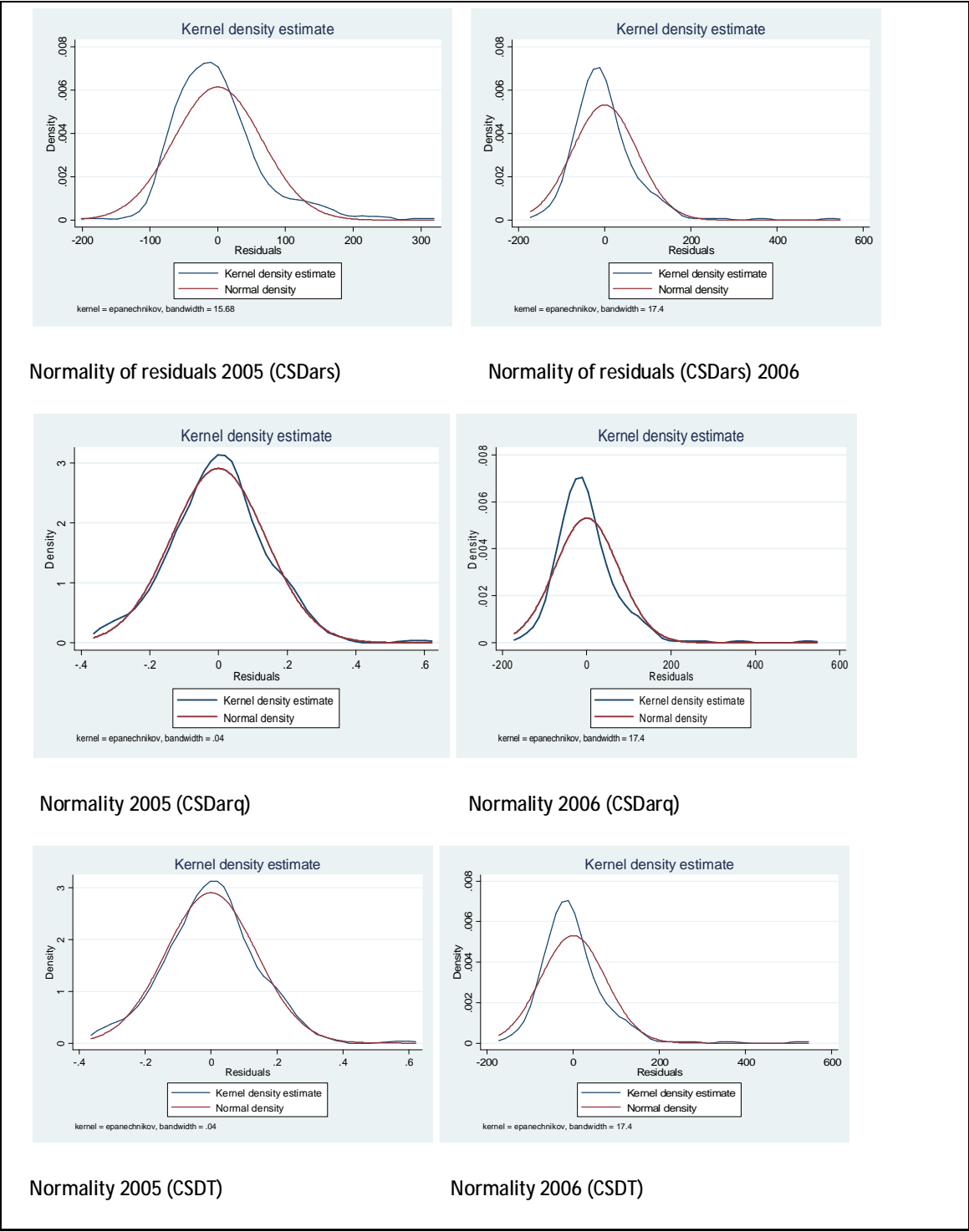
##### 4.3.1.1 normality of residuals

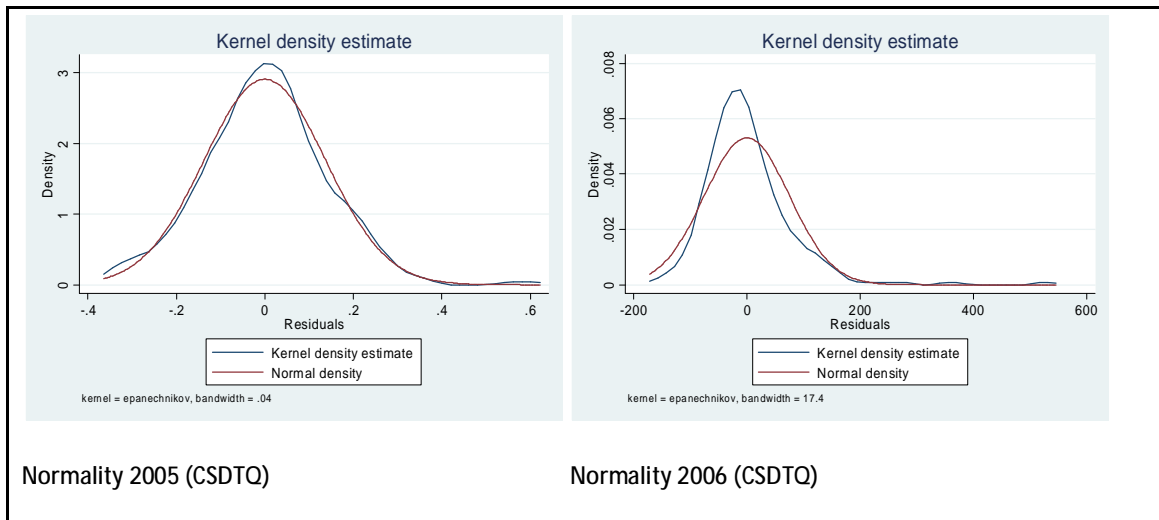
This assumption refers to the fact that the residuals (errors) should be normally distributed. There is no assumption that independent variables will be normally distributed. Normality of residuals is required for assurance that the P-values for t-tests and F-test are valid. The normality assumption is not required in order to obtain unbiased estimates of the regression coefficients. This assumption can be examined using the Stata programme as follows: After conducting regression analysis, the **predict** command will be used to generate residuals



(predict r, resid). Then, the **kdensity** command will be used to create a kernel density plot with the normal option (**kdensity r, normal**). The following figure provides a kernel density plot.

Figure 8.3: A kernel density plot





The previous figure indicates that the 2006 data appear to have a normality problem, while the 2005 data appear not to have a normality problem. Using robust standard errors addresses the problem of errors that are not normally distributed. Robust standard errors do not change the coefficient estimates, but change the standard errors and significance tests.

#### 4.3.1.2 Heteroskedasticity

Heteroskedasticity means that the error variance should be constant, as one of the main assumptions for OLS regression is the homogeneity of the variance of residuals. If the variance of the residuals is non-constant, then the residual variance is said to be heteroskedastic. To examine the heteroskedasticity problem using the Stata programme, after conducting regression analysis, the command **hettest** will be used to run the Breusch-Pagan test. The null hypothesis of this test is that the variance of residuals is homogenous, so if the P-value is small the null hypothesis will be rejected, and will accept the alternative hypothesis that the variance is heteroskedastic. The following table presents the results for the Breusch-Pagan test; the significant chi2 indicates the presence of the heteroskedasticity problem:

Table 8.10: Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

	CSDars		CSDarq		CSDT		CSDTQ	
	2005	2006	2005	2006	2005	2006	2005	2006
chi2(1)	48.60	59.76	0.98	9.69	153.35	101.21	53.24	53.96
Prob > chi2	0.0000	0.0000	0.3215	0.0018	0.0000	0.0000	0.0000	0.0000

#### 4.3.1.3 Multicollinearity

Multicollinearity means that the independent variables are correlated, which can cause problems in estimating the regression coefficients. To examine the multicollinearity problem using the Stata programme, after conducting regression analysis, the command **VIF** will be used. The following table provides the values of VIF which are less than 2. These values of VIF indicate a limited problem of multicollinearity.

Table 8.11: The values of VIF

Variables	2005		2006	
	VIF	1/VIF	VIF	1/VIF
PRO	1.13	0.882720	1.14	0.875839
CSta	1.90	0.527458	2.05	0.488175
TA	1.15	0.868881	1.14	0.878319
DMAfc	1.10	0.908715	1.08	0.926442
BS	1.50	0.664674	1.68	0.596505
NEDp	1.15	0.873324	1.09	0.915380
CRC	1.14	0.874394	1.20	0.831592
SS	1.20	0.830119	1.19	0.839449
MP	1.36	0.733417	1.03	0.970882
Mean VIF	1.29		1.29	

#### 4.3.2 Poisson regression diagnostics

Regression models that examine the dependent variables CSDsa and CSDsaq can be conducted using the Poisson regression model. Poisson probabilities are used to model the number of occurrences (counts) of an event. In Poisson distribution a mean and a variance are the same. When the mean equals the variance there is equi-dispersion in distribution, and if the variance is greater than the mean there is over-dispersion in distribution. To examine the presence of over-dispersion using the Stata programme, after conducting Poisson regression,

the **gof** command will be used to run a likelihood ratio chi-squared (the goodness of fit). The following table provides the results of goodness of fit:

**Table 8.12: A likelihood ratio chi-squared statistic test**

	CSDsa		CSDsaq	
	2005	2006	2005	2006
Goodness-of-fit chi2	6102.085	6497.065	175.3633	176.0631
Prob > chi2(225)	0.0000	0.0000	0.9939	0.9998

If the test is significant, the Poisson regression is not appropriate. The large chi-square also indicates that there is not a very good fit for the Poisson regression model, and this suggests that there is over-dispersion. Consequently, it appears that the Poisson regression model is not appropriate for analysing the quantity of social disclosure in stand-alone reports (CSDsa), while it is appropriate for analysing the quality of this disclosure (CSDsaq). The alternative method for Poisson regression is negative binomial regression, which is used when the event shows over-dispersion. Therefore, the negative binomial regression model will be used to analyse the quantity of social disclosure in stand-alone reports (CSDsa).

### 4.3.3 Panel data analysis

The advantage of panel data regression is that it takes the time effect into account. As Cormier et al. (2005) stated; if an OLS regression for one period provides a picture, panel data provide a sequence of pictures. The regression results are divided into two parts; one for the regression results that relate to analysis of the quantity of CSD, and another for analysis of the quality of CSD.

#### 4.3.3.1 The quantity of disclosure

Table 8.13 provides the results of regression models that examine the determinants of quantity of CSD. The values of  $R^2$  (models 1 and 3) are considered acceptable in the context of a comparison with the findings of previous disclosure literature.

Table 8.13: Regression analysis of quantity of disclosure

	Model 1 CSDars		Dependent variables Model 2 CSDsa		Model 3 CSDT	
	Coef.	P	Coef.	P	Coef.	P
PRO	26.5733	0.457	-.6123362	0.595	-3.478982	0.778
CSnoe	16.43196	0.002	.6023472	0.002	3.761934	0.028
TA	26.80604	0.001	.7903419	0.015	3.552807	0.197
DMAfc	.5492414	0.222	-.0515227	0.000	.036832	0.803
BS	5.890351	0.000	.0458835	0.312	1.484453	0.004
NEDp	56.47697	0.074	2.389459	0.012	10.664	0.323
CRC	23.87598	0.016	.2783177	0.229	9.838231	0.004
SS	-.3718594	0.083	-.0122918	0.068	-.2082293	0.004
MP	.6104925	0.011	.0069725	0.087	.3448358	0.000
Number of obs		532		515		532
Wald chi2(9)		136.56		58.21		137.52
Prob > chi2		0.0000		0.0000		0.0000
R-sq: within		0.0875				0.0008
between		0.2915				0.3332
overall		0.2573				0.2722
Log likelihood			-1424.0576			
Model	Random-effects GLS regression		Random-effects negative binomial regression		Random-effects GLS regression	

The results show that corporate profitability (PRO) is not associated with quantity of CSD at all, while both corporate size (CSnoe) and type of activities (TA) are significantly associated with quantity of CSD, with the exception of non-association between TA and CSDT. The degree of multinational activities (DMAfc) does not appear to be associated with both quantity of disclosure in annual reports (CSDars) and total quantity (CSDT), while it has an unexpected negative association with quantity of disclosure in stand-alone reports (CSDsa). With regard to corporate governance variables, the results show that governance practices, in general, are associated with quantity of CSD, with the exception of non-association between both BS and CRC, and CSDsa, and non-association between NEDp and CSDT. In addition, substantial shareholders (SS) appear to be associated with quantity of CSD. Regarding media pressure, it appears to be significantly associated with quantity of CSD. These results, in general, are largely consistent with the findings of previous literature. The results seem to support the suggested framework, to a large extent, as it reveals that

corporate characteristics, media pressure, corporate ownership and some practices of corporate governance are considered to be important factors in determining the level of quantity of CSD. The following table summarises the relationship between different independent variables and the different variables that represent quantity of CSD:

Table 8.14: The impact on different variables of quantity of CSD

	CSD in annual reports	CSD in stand-alone reports	Total CSD
<b>Corporate size</b>	Positive association	Positive association	Positive association
<b>Type of activities</b>	Positive association	Positive association	No association
<b>Corporate profitability</b>	No association	No association	No association
<b>Multinationality</b>	No association	Positive association	No association
<b>Media pressure</b>	Positive association	Positive association	Positive association
<b>Board size</b>	Positive association	No association	Positive association
<b>Non-executive directors</b>	Positive association	Positive association	No association
<b>Corporate responsibility committee</b>	Positive association	No association	Positive association
<b>Corporate ownership</b>	Positive association	Positive association	Positive association

## Discussion

The results concerning corporate characteristics variables (PRO, CSnoe and TA) are consistent with the dominant trend in previous literature, where the results of the majority of previous studies indicate that there is no association between profitability and CSD, while there is significant association between both corporate size and type of activities, and CSD. Corporate size and type of activities are positively associated with quantity of CSD, indicating that large industrial companies provide more quantity of social responsibility information. This result is consistent with the findings of previous studies in different countries. In the UK context, previous studies (Brammer & Pavelin, 2004; Brammer & Pavelin, 2006; Toms et al., 2007; Toms, 2008 and Parsa & Kouhy, 2008) indicated a positive association between both size and activity, and quantity of CSD. The results show that the association between both CSnoe and TA, and quantity of disclosure in annual reports (coef.

16.43196 and 26.80604 for CSnoe and TA respectively) is stronger than the association with quantity of disclosure in stand-alone reports (coef. .6023472 and .7903419 for CSnoe and TA respectively). The result is consistent with legitimacy theory, as large industrial companies are more visible and consequently they face more social pressure; therefore they are more likely to provide a greater quantity of social responsibility information. This result provides evidence that supports hypotheses 1a and 2a which indicated a positive association between both size and activity, and quantity of CSD. Corporate profitability is not associated, as expected, with quantity of CSD, suggesting that companies with high profitability do not care to increase their social and environmental disclosure. This result is consistent with previous mainstream literature (Cowen et al., 1987; Patten, 1991; Ahmad et al., 2003; Ghazali, 2007; Reverte, 2009; Stanny & Ely, 2008; Garcia-Sanchez, 2008; Monteiro & Aibar-Guzman, 2009; Jinfeng & Huifeng, 2009), while it is not consistent with a small number of previous studies that indicated a significant association between profitability and CSD (Hackston & Milne, 1996; Hossain et al., 2006). In the UK context, prior studies (Brammer & Pavelin, 2006; 2008) indicated no association between profitability and CSD. The non-association between PRO and quantity of CSD, taking into account the results of previous studies, could indicate that companies are not convinced of the existence of direct economic results for CSD. This result is consistent with legitimacy theory, which considers CSD as a legitimacy tool without direct financial benefits. With regard to hypothesis 3a, which refers to non-association between profitability and quantity of CSD, the results provide evidence that supports this hypothesis.

The results concerning the degree of multinational activities reveal that it is not associated with quantity of CSD, with the exception of a weak negative association with quantity of stand-alone reports (coef. -.0515227). The non-association between the degree of multinational activities and quantity of disclosure in annual reports, is considered to be consistent with the previous findings of Branco & Rodrigues (2008), which indicated the absence of a

relationship between multinationality and CSD in annual reports, and is not consistent with the findings of Stanny & Ely (2008). In the UK context, this result is consistent with the findings of Toms et al. (2007) and Toms (2008). Generally, these results do not provide evidence on a clear relationship between multinationality and quantity of social disclosure. Therefore, with regard to hypothesis 4a, which proposes an association between DMAfc and quantity of CSD, the regression results provide evidence to reject this hypothesis. The absence of a relationship between multinationality and CSD, which is not consistent with a suggested framework, may be due to the probability that the geographical extensions more often exist in developing countries which pay little attention to the social responsibility of a company. It can therefore be argued that multinational companies face more social pressure in home countries, than they face in foreign countries and consequently they focus their attention on the concerns of the community in the home country. This result supports the argument of Toms et al. (2007) and Toms (2008) that attention should be paid to the political and environmental risk in the countries in which multinational companies operate, rather than the number of foreign countries in which they operate.

The previous results concerning corporate characteristics (PRO, CSnoe, TA and DMAfc) revealed that both size and type of activities determine the social pressure that faces companies. It can be argued therefore, that the size of companies and type of activities are the most important factors in attracting the attention of the community to pursue corporate activity. These findings support, to a large extent, the general argument that corporate characteristics play an important role in determining the degree of pressure faced by companies, and consequently the level of CSD.

Regarding media pressure, the results provide evidence that media pressure is significantly associated with quantity of CSD, indicating that companies with wide media coverage are more likely to provide a high level of social disclosure. This result is consistent with the



findings of Adler & Milne (1997), Brown & Deegan (1998), Patten (2002a), Deegan et al. (2002), Cormier & Magnan (2003), Cormier et al. (2005), Reverte (2009) and Branco & Rodrigues (2008). In the UK context, Brammer & Pavelin (2004) suggested a positive relationship, while Brammer & Pavelin (2006) indicated no association between media pressure and the decision to disclose environmental information. This result is consistent with legitimacy theory and the suggested framework, as more media coverage reflects more social pressure, and consequently more CSD. The values of regression coefficients show that association between MP and quantity of disclosure in annual reports is stronger than the association with quantity in stand-alone reports (coef. .6104925 and .0069725 for CSDars and CSDsa respectively), which indicates that the companies still rely on annual reports as a way of responding to media pressure. It appears that the impact of media pressure on CSD is lower than the impact of corporate characteristics. This weak association between media pressure and CSD, compared with the association between corporate characteristics and CSD, may be due to media pressure, itself being determined according to corporate characteristics. With regard to hypothesis 5a, which indicates a positive association between media pressure and quantity of CSD, the regression result appears to provide evidence that supports this hypothesis.

These results, concerning media pressure, and previous results concerning corporate characteristics, provide evidence that supports the general argument that corporate characteristics and, to a lesser extent, media pressure are important determinants of social pressure on companies, and consequently the level of CSD. Therefore, these findings provide support for the first general hypothesis with regard to the dimension of disclosure quantity. Factors involved in this dimension of the suggested framework are extensively examined in previous literature, but few studies have addressed them in an integrated manner within a theoretical framework.

With regard to corporate governance variables, the regression results show that, in general, governance mechanisms are associated with quantity of CSD. Board size (BS) appears to be associated with quantity of CSD, with the exception of non-association with quantity of stand-alone reports. The positive association between BS and CSDars, indicates that increasing the number of directors on the board is associated with a greater quantity of CSD in annual reports. This result is not consistent with the results of Halme & Huse (1997), who indicated the absence of a relationship between board size and environmental disclosure in annual reports. A positive association between BS and disclosure in annual reports, and non-association with disclosure in stand-alone reports could indicate that the board of directors is more interested in annual reports as a means of disclosure. With regard to hypothesis 6<sub>a</sub>, which indicated a positive association between board size and quantity of CSD, the overall regression results provide evidence to support this hypothesis. This result supports the theoretical view that board size has an impact on corporate disclosure policy. The result can be interpreted in the context of the proposed framework, as an increasing number of directors on the board, provides a greater opportunity for the presence of members who are more interested in CSR. Consequently, the companies with more directors on the board are more likely to react positively to social pressure, and one of the tools for dealing with this is to increase the quantity of social and environmental information.

The proportion of non-executive directors (NEDp) appears to be associated with quantity of CSD, with the exception of non-association with total quantity of CSD. This result could indicate that companies with a high proportion of non-executive directors are more likely to provide more CSD. The coefficients values show that NEDp is more associated with quantity of disclosure in annual reports, than quantity of stand-alone reports (coef. 56.47697 and 2.389459 for CSDara and CSDsa respectively). The positive association between NEDp and CSDars is not consistent with the findings of Haniffa & Cooke, (2005), which indicated that non-executive

directors are negatively associated with CSD, Prado- Lorenzo et al. (2009) and, in the UK, Brammer & Pavelin (2006), which indicated no relationship between the number of non-executive directors and environmental disclosure. This difference in results may be due to the focus of previous studies on environmental disclosure and/or use of another indicator to measure the variable (number of non-executive directors). With regard to hypothesis 7a, the overall results provide limited support for this hypothesis, which states that there is an association between NEDp and quantity of CSD. This result can be understood in the context of the suggested framework, as increasing the proportion of non-executive directors on the board, increases the likelihood that companies respond positively to social pressure and consequently provide more social and environmental information. This result supports the view that non-executive directors are seen as the balance mechanism in ensuring that companies act in the best interests of all stakeholders, and provide additional windows on the world. Consequently, non-executive directors can exert pressure on companies engaging in CSD, to achieve congruence between organisational actions and societal values (Haniffa & Cooke, 2005: 400). The reason for having outside presence on the board, according to Adrian Cadbury, is that outside directors bring awareness of the external world and the changing nature of public expectations, to board discussions (Clarke, 1998: 120). Clarke (1998) argued that non-executive directors are often considered to bring valuable external business experience, which can contribute to the strategic success of a company (Clarke, 1998: 118).

The presence of a corporate responsibility committee tends to be associated with quantity of CSD, which is positively associated with quantity of disclosure in annual reports and total quantity, while it is not associated with quantity of disclosure in stand-alone reports. CRC has a strong positive association with quantity of social disclosure in annual reports (coef. 23.87598, and  $P = 0.016$ ). This result is not consistent, to a large extent, with the study of Cowen

et al. (1987)<sup>42</sup>, which indicated that the presence of a corporate responsibility committee is related to one type of social disclosure. With regard to hypothesis 8a, which indicates the relationship between the corporate responsibility committee and CSD, the overall results support this hypothesis, as the results state that there is an association between the corporate responsibility committee and quantity of social disclosure.

With regard to corporate ownership-diffusion (SS), there is a negative association between substantial shareholders and quantity of CSD, reflecting that companies with fewer block shareholders are more likely to provide greater CSD. The result reflects a positive association between ownership-diffusion and CSD. Ownership-diffusion means that there is a diversity of shareholders' needs for information, and from that, information about the social responsibility of companies. This result is not consistent with the findings of Halme & Huse (1997), Ghazoli (2007) and Reverte (2009). With regard to hypothesis 9a, the regression results provide evidence to support this hypothesis.

The overall results concerning corporate governance and ownership, provide support for a general argument that corporate governance and ownership play an important role in determining how companies respond to social pressure and consequently, in determining the level of CSD. Therefore, it can be argued that the results support, to a large extent, the second general hypothesis. In addition, the values of regression coefficients show that association between the corporate responsibility committee and total quantity of CSD (coef. 9.838231 and  $P=0.004$ ) is stronger than association between both corporate size {coef. 3.761934 and  $p=0.028$ ) and media pressure (coef. .3448358 and  $P=0.000$ ), and the total quantity of CSD. These findings suggest that: (1) corporate responsibility committees appear to play a very important role in determining CSD strategy; (2) how companies respond to social pressure is more important than the degree of social pressure on companies, in determining the quantity of CSD. These

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<sup>42</sup> This study examined the presence of the corporate responsibility committee in the company as a whole, not as a board committee.

regression results provide evidence that supports a theoretical framework with regard to the dimension of quantity of CSD.

#### 4.3.3.2 Quality of disclosure

Table 8.15 provides the results of regression models that examine the determinants of quality of CSD. The values of  $R^2$  of model 4 reflect the low explanatory power of the model, while this value is considered as acceptable in model 6.

Table 8.15: Regression results concerning quality of disclosure

	Model 4 CSarq		Dependent variables Model 5 CSDsaq		Model 6 CSDTQ	
	Coef.	P	Coef.	P	Coef.	P
PRO	-.0540036	0.440	.7050858	0.537	.24455	0.385
CSnoe	.0296201	0.003	.3388183	0.055	.1187193	0.005
TA	.0108547	0.501	.420858	0.088	.118894	0.086
DMAfc	-.0005061	0.558	-.0181662	0.135	-.001493	0.685
BS	.0050768	0.088	.1624603	0.000	.0388707	0.001
NEDp	.0838519	0.178	.8990137	0.424	.4292489	0.090
CRC	.0043614	0.822	.5509062	0.042	.2105191	0.007
SS	-.0006107	0.145	-.0150329	0.039	-.0043214	0.012
MP	.0006743	0.144	.0079409	0.179	.0098634	0.000
Number of obs	530		514		530	
Wald chi2(9)	42.36		61.90		153.71	
Prob > chi2	0.0000		0.0000		0.0000	
R-sq: within	0.0004				0.0244	
between	0.1265				0.3410	
overall	0.1218				0.3301	
Log likelihood			-316.74273			
model	Random-effects regression	GLS	Random-effects regression	Poisson	Random-effects regression	GLS

The results show that a suggested framework has low explanatory power with regard to explaining the quality of disclosure in annual reports. Corporate profitability is not associated with quality of CSD. Both corporate size and type of activities appear to be positively associated with quality of disclosure, with the exception of non-association between type of activities and quality of disclosure in annual reports. The degree of multinational activities is not associated with quality of CSD. With regard to corporate governance variables, board size appears to be associated with quality of CSD. Non-executive directors tend not to be

associated with quality of CSD, with the exception of a weak association with total quality. Both the presence of a corporate responsibility committee (CRC) and substantial shareholders (SS) are positively associated with quality of disclosure in stand-alone reports and total quality of disclosure, while it is not associated with quality of disclosure in annual reports. With regard to media pressure, it seems to be associated only with total quality of CSD. The following table summarises the relationship between different independent variables, and different variables that represent quality of CSD:

Table 8.16: The impact on different variables of quality of CSD

	CSD in annual reports	CSD in stand-alone reports	Total CSD
Corporate size	Positive association	Positive association	Positive association
Type of activities	No association	Positive association	Positive association
Corporate profitability	No association	No association	No association
Multinationality	No association	No association	No association
Media pressure	No association	No association	Positive association
Board size	Positive association	Positive association	Positive association
Non-executive directors	No association	No association	Positive association
Corporate responsibility committee	No association	Positive association	Positive association
Corporate ownership	No association	Positive association	Positive association

## **Discussion**

The results concerning quality of disclosure are similar, to some extent, to the results concerning quantity of disclosure. Generally, the impact of a suggested framework is clearer with regard to the quantity of disclosure, than the quality thereof. Concerning corporate characteristics variables, the results indicate that, similar to results of quantity, both corporate size and type of activities are significantly associated with quality of CSD, while both profitability and multinationality are not associated with quality of disclosure. Both corporate size and type of activities appear to be significantly associated with quality of CSD, with the

exception of non-association between TA and CSDarq, indicating that large industrial companies are most likely to provide a high quality of CSD. The non-association between TA and CSDarq reflects that, while industrial companies seem to provide a greater quantity of disclosure, the type of activities has no impact on the type of disclosure. At the same time, it appears that industrial companies seem to be more interested in preparing corporate responsibility reports, using reporting guidelines, and reviewing these reports by independent auditors. This result is consistent with the findings of Brammer & Pavelin (2006 and 2008) which indicated a positive association between both size and type of activities, and quality of environmental disclosure. These results, in addition to the results concerning quantity of disclosure, confirm the impact of both size and activity on the overall strategy of CSD. Comparing these results with previous results concerning quantity of disclosure, shows that the impact of size and activity on quantity of disclosure is stronger than their impact on quality of disclosure. With regard to hypotheses 1<sub>b</sub> and 2<sub>b</sub>, the regression results provide evidence that support both hypotheses. Corporate profitability is not associated with quality of disclosure, indicating that more profitable companies are not concerned about providing high disclosure quality in annual reports, or using reporting guidelines or independent reviews. This result is consistent with the findings of Brammer & Pavelin (2006 and 2008) which indicated no relationship between profitability and quality of environmental disclosure in annual reports. This result, in addition to the result concerning quantity of disclosure, is consistent with a dominant view in the findings of previous literature, and confirms the non-association between financial performance and CSD. With regard to hypothesis 3<sub>b</sub>, the regression results provide evidence to support this hypothesis. The degree of multinational activities appears not to be associated with quality of disclosure, indicating that geographical extension has no influence on the quality of social disclosure. It appears that while multinationality has an impact on quantity of CSD in annual reports, it has no impact on its

quality. With regard to hypothesis 4<sub>b</sub>, which indicates a positive association between multinationality and quality of CSD, the results provide evidence to reject this hypothesis.

These results are consistent, to a large extent, with a general argument that corporate characteristics determine social pressure on companies and consequently the level of CSD.

Regarding media pressure, the results show that it is not associated with quality of CSD, with the exception of a weak relationship with total quality (coef. .0098634). This result is consistent with the findings of Brammer & Pavelin (2006 and 2008) which indicated no relationship between media pressure and quality of environmental disclosure, but it is not consistent with Cormier et al. (2005). This result, along with the previous result concerning quantity of disclosure, suggests that companies respond to media pressure by providing more social and environmental information, without paying attention to the type of aforementioned information. With regard to hypothesis 5<sub>b</sub>, the results provide evidence to reject this hypothesis.

These results do not support, to a large extent, the general argument that corporate characteristics and media pressure determine the size of social pressure on companies, and that companies will respond to this pressure by providing high disclosure quality. Therefore, it can be argued that companies will focus their attention on increasing the quantity of social information, without paying attention to the quality of that information.

With regard to corporate governance variables, it appears that both board size (BS) and corporate responsibility committee (CRC) are associated with quality of CSD. The results show that corporate governance practices have less impact on quality, than on quantity. The board size seems to be associated with quality of CSD, indicating that increasing the number of directors on the board, influences the type of information in annual reports, and encourages the use of reporting guidelines and independent auditors in preparing corporate responsibility reports. This result, along with the result concerning quantity of disclosure, supports the



theoretical view that board size has an impact on corporate disclosure policy. With regard to hypothesis 6<sub>b</sub>, which indicated a positive association between board size and quality of CSD, the results provide evidence to support this hypothesis. Non-executive directors are not associated with quality of CSD, with the exception of weak association with the total quality (coef. .4292489 and P 0.0900). It appears that non-executive directors are more concerned with quantity of disclosure, than its quality. This result is consistent with Brammer & Pavelin (2008), who indicated a non-association between the number of non-executive directors and the quality of environmental disclosure. These results provide evidence that rejects hypothesis 7<sub>b</sub>. Regarding the corporate responsibility committee, it appears to be associated with quality of CSD, in particular quality of stand-alone reports, indicating that the presence of a corporate responsibility committee, as a board committee, plays an important role in preparing corporate responsibility reports. It appears that corporate responsibility committees are interested in using reporting guidelines (such as GRI, AAA,--), and independently reviewing these reports. Comparing the results concerning quantity and quality of disclosure, reveals that association between the corporate responsibility committee and quantity of disclosure, is stronger than association with quality of disclosure. It can thus be argued that corporate responsibility committees are more interested in the quantity of social and environmental information, than their quality. With regard to hypothesis 8<sub>b</sub>, which indicates a positive association between CRC and quality of CSD, the regression results support this hypothesis.

Concerning corporate ownership, it appears that a substantial number of shareholders is negatively associated with quality of CSD, with the exception of a non-association with quality of disclosure in annual reports. This result is not consistent with the findings of Brammer & Pavelin (2008). It can be argued that widening the ownership base is an incentive for the intention of preparing corporate responsibility reports, according to reporting

principles, and using an independent auditor to review these reports. With regard to hypothesis 9b, which indicated a negative association between SS and quality of disclosure, the results provide evidence that supports this hypothesis.

These results provide support, to some extent, to the general argument that governance practices play an important role in determining how companies respond to social pressure, and consequently determine the level of CSD. At the same time, the results actually reflect a weak association between corporate governance and ownership variables, and quality of CSD. Therefore, it can be argued that the influence of the suggested framework on quantity of CSD is clearer than its influence on quality of CSD.

The following table summarises the results concerning hypotheses examination:

Table 8.17: The results of examining hypotheses

Hypotheses	Expected relation	Reported relation	Results
1a: the relation between corporate size and quantity of CSD	Positive	Positive	Accept hypothesis
1b: the relation between corporate size and quality of CSD	Positive	Positive	Accept hypothesis
2a: the relation between type of activities and quantity of CSD	Positive	Positive	Accept hypothesis
2b: the relation between type of activities and quality of CSD	Positive	Positive	Accept hypothesis
3a: the relation between corporate profitability and quantity of CSD	No relation	No relation	Accept hypothesis
3b: the relation between corporate profitability and quality of CSD	No relation	No relation	Accept hypothesis
4a: the relation between degree of multinational activities and quantity of CSD	Positive	No relation	Reject hypothesis
4b: the relation between degree of multinational activities and quality of CSD	Positive	No relation	Reject hypothesis
5a: the relation between media pressure and quantity of CSD	Positive	Positive	Accept hypothesis
5b: the relation between media pressure and quality of CSD	Positive	No relation	Reject hypothesis
6a: the relation between board size and quantity of CSD	Positive	Positive	Accept hypothesis
6b: the relation between board size and quality of CSD	Positive	Positive	Accept hypothesis
7a: the relation between proportion of non-executive directors and quantity of CSD	Positive	Positive	Accept hypothesis
7b: the relation between proportion of non-executive directors and quality of CSD	Positive	No relation	Reject hypothesis
8a: the relation between presence of corporate responsibility committee and quantity of CSD	Positive	Positive	Accept hypothesis
8b: the relation between presence of corporate responsibility committee and quality of CSD	Positive	Positive	Accept hypothesis
9a: the relation between corporate ownership and quantity of CSD	Positive	Positive	Accept hypothesis
9b: the relation between corporate ownership and quality of CSD	Positive	Positive	Accept hypothesis

#### 4.3.4 More analysis

Some more analysis (modification of some variables) through a suggested framework is performed. (1) Previous literature debates the unit of analysis of CSD in annual reports. This debate has concentrated on which is better to measure quantity of social disclosure in annual reports; number of sentences or number of pages. To evaluate whether these different measures provide different results, the regression model concerning quantity of CSD in

annual reports is performed by using three different indicators of quantity of disclosure in annual reports: number of sentences (CSDars), number of pages (CSDarp) and proportion of social disclosure pages to total number of annual report pages (CSDarpp). The following table provides the regression results using three indicators:

Table 8.18: Regression results for different measures of quantity of CSD in annual reports

	Dependent variables					
	CSDars		CSDarp		CSDarpp	
	Coef.	P	Coef.	P	Coef.	P
PRO	26.5733	0.457	1.411671	0.342	.0099137	0.455
CSnoe	16.43196	0.002	.5904253	0.007	.0038865	0.049
TA	26.80604	0.001	1.178671	0.001	.0113934	0.000
DMAfc	.5492414	0.222	.011877	0.531	-.0001622	0.347
BS	5.890351	0.000	.2201038	0.001	.0003388	0.556
NEDp	56.47697	0.074	1.301212	0.219	-.004711	0.618
CRC	23.87598	0.016	1.056917	0.010	.0088162	0.017
SS	-.3718594	0.083	-.0040986	0.652	-.0000282	0.730
MP	.6104925	0.011	.0104443	0.298	-.0000833	0.359
Wald chi2(9)	136.56		84.86		31.29	
Prob > chi2	0.0000		0.0000		0.0003	
R-sq: within	0.0875		0.0656		0.0174	
between	0.2915		0.2019		0.0894	
overall	0.2573		0.1664		0.0654	

The table shows differences in regression results among the three measures indicating that each measure provides different results for quantity of CSD. The results show the same impact for corporate characteristics variables on different measures of disclosure, as both size and activity is significantly associated with disclosure, while both profitability and multinationality is not associated with disclosure. It also appears that the impact of the corporate responsibility committee on disclosure is consistent among the three measures, so this further confirms the relationship between both corporate characteristics and corporate responsibility committee, and quantity of disclosure in annual reports. The values of  $R^2$  for three models suggest using the number of sentences to provide a better measure for quantity of CSD in annual reports.

(2) Previous literature has focused on the number of news items in traditional (printed) newspapers, to measure the media-pressure variable. This common indicator shows a limitation, in that it does not take into account the fact that the internet is becoming important news medium. Therefore, it can be argued that the media-pressure variable can be measured as the total number of news items regarding CSR, related to a given company, in both printed newspapers and the internet. To evaluate the impact of this change in measurement of media pressure on the results, the previous regression tests are performed again, using total media pressure. The following table presents the regression results in the use of total media pressure in both printed newspapers and the internet (TMP), instead of only MP:

Table 8.19: Regression results using total media pressure

	CSDars	CSDsa	Dependent variables			
			CSDT	CSDarq	CSDsaq	CSDTQ
PRO	31.28771	-.9233446	-4.092961	-.0408969	.6951808	.2304481
CSnoe	18.72343***	.5818357***	3.722884**	.0314886***	.3072881*	.1132352***
TA	27.0624***	.6987566**	4.330713	.016392	.4130719*	.1318507*
DMAfc	.4866919	-.0525256***	.0052432	-.0006292	-.0202665	-.0022168
BS	6.184918***	.0682454	1.287306***	.0050792*	.1570447***	.0351794***
NEDp	52.36885*	2.448709***	9.458084	.0654947	.9641759	.4032536*
CRC	24.33811**	.3250478	9.056407***	.0017751	.5119*	.1835406**
SS	-.3923804*	-.0116218*	-.1992712***	-.0006267	-.0161784**	-.0042881***
TMP	.2639967*	.0069115***	.2501395***	.0005096*	.0066011	.0070929***
Wald chi2(9)	143.21	69.49	150.97	48.64	62.51	165.64
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
R-sq: within	0.0669		0.0100	0.0013		0.0465
between	0.2971		0.3320	0.1367		0.3364
overall	0.2595		0.2802	0.1282		0.3292
Log likelihood		-1463.2596			-323.25035	

(\* Significant at .1 level, \*\* significant at .05 level, \*\*\* significant at .01 level)

The regression results are largely consistent with previous results. This consistency between results could reflect that companies which attract more media coverage also attract more coverage through internet news. This result confirms the impact of media pressure (both traditional and modern media) on CSD policy.

(3) Non-executive directors can be divided into independent non-executive directors and non-independent non-executive directors. Beasley (1996) indicated that a number of corporate

governance researchers note that the traditional distinction between executive (inside) directors and non-executive (outside) directors, fails to account for the actual and potential conflicts of interests between non-executive directors and their companies. Non-executive directors are thus commonly classified into two categories: independent non-executive directors (non-executive directors who have no affiliation with the company other than the affiliation of being on the board of directors), and grey non-executive directors (non-executive directors who have some non-board affiliation with the company). The impact of non-executive directors can therefore be measured using the proportion of independent non-executive directors (not total non-executive directors) on the board. The following table summarises the results of previous regression models by using the proportion of independent non-executive directors (INEDp), instead of total non-executive directors:

Table 8.20: Regression results using independent non-executive directors

	Dependent variables					
	CSDars	CSDsa	CSDT	CSDarq	CSDsaq	CSDTQ
PRO	27.73744	-.6806268	-3.248535	-.0508569	.7240885	.2518048
CSnoe	16.27143***	.5811824***	3.625119**	.0278193***	.3384505*	.1166096***
TA	26.75589***	.9198411***	3.585788	.0113524	.4448055*	.1190155*
DMAfc	.5538126	-.0485667***	.0363169	-.0005118	-.0173369	-.0014864
BS	5.861077***	.0470556	1.497946***	.0052433*	.1614744***	.0383839***
INEDp	44.97308*	3.294293***	12.84147	.1260202**	1.183553	.4024792**
CRC	24.06533**	.2653816	9.808054***	.0035013	.539256**	.2096542***
SS	-.2937471	-.0115531*	-.1877964**	-.0004056	-.0137051*	-.0036015**
MP	.6200755***	.0047806	.3432326***	.0006525	.0076735	.0099494***
Wald chi2(9)	136.62	65.29	139.24	46.57	61.59	153.93
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
R-sq: within	0.0837		0.0010	0.0208		0.0342
between	0.2926		0.3359	0.1191		0.3359
overall	0.2570		0.2749	0.1252		0.3281
Log likelihood		-1420.7081			-316.31026	

(\* Significant at .1 level, \*\* significant at .05 level, \*\*\* significant at .01 level)

The results are consistent, to a large extent, with previous regression results. The results concerning independent non-executive directors (INEDp) are similar to previous results concerning total non-executive directors (NEDp), with the exception of significant association between INEDp and CSDarq, while there is no association between NEDp and

CSDarq. This difference in results suggests that the impact of independent non-executive directors on CSD in annual reports is clearer than the impact of total non-executive directors. At the same time, it appears that the impact of both independent non-executive directors and total non-executive directors, on a whole strategy of social disclosures, is the same. These results reflect that the impact of non-executive directors on CSD is not influenced by whether non-executive directors are independent, or not.

(4) The regression results, in general, indicate a significant impact from the presence of a corporate responsibility committee as a board committee, on CSD, so it may be useful to examine whether the independence of this committee has an impact on CSD, or not. Therefore, an additional variable, the independence of the corporate responsibility committee, is added to previous regression models. The following table presents the results of regression models with the addition of a new variable:

Table 8.21: The regression results with additional variable regarding the independence of CRC

	Dependent variables					
	<u>CSDars</u>	<u>CSDsa</u>	<u>CSDT</u>	<u>CSDarq</u>	<u>CSDsaq</u>	<u>CSDTO</u>
PRO	9.592445	-.0191339	-.2157461	-.063842	.856081	.2814345
CSnoe	16.93623***	.5561393***	3.60713**	.0294298***	.3172587*	.1143843
TA	25.78573***	.9405791***	3.555417	.0089622	.4511257*	.1231235
DMAfc	.487995	-.0323256**	.0482961	-.0005665	-.0166433	-.001841
BS	5.548979***	.0457551	1.513166***	.0045632	.167439***	.0403348
NEDp	54.63995*	2.06314**	10.564	.0799322	1.014164	.4322575
CRC	-10.11482	1.077766***	12.80893**	-.0313533	.9659984**	.3353184
CRCI	66.58538**	-1.78995***	-7.303782	.0699308	-.7284281	-.2019768
SS	-.364775*	-.0174047**	-.2165975***	-.0006192	-.0155859**	-.0044921
MP	.4994406**	.0084837**	.3641986***	.0005951	.0088083	.0100921
Wald chi2(10)	143.31	65.00	135.20	42.90	64.53	157.48
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
R-sq: within	0.0920		0.0012	0.0007		0.0304
between	0.3033		0.3323	0.1299		0.3477
overall	0.2714		0.2705	0.1241		0.3361
Log likelihood		-1386.7937			-309.81334	

(\* Significant at .1 level, \*\* significant at .05 level, \*\*\* significant at .01 level)

It appears that adding a variable of CRCI yields mixed results, which may be due to the problem of correlation between two variables, CRC and CRCI. The results show that the independence of the corporate responsibility committee is not associated with CSD.

#### **4.4 Sensitivity Analysis (alternative measures)**

A number of sensitivity tests are performed, in which some alternative measures, for some variables, are used. Generally, the results of sensitivity tests, not reported, are consistent with reported regression results. (1) Using total assets as an indicator for corporate size. The findings reflect the same results, as they reflect a significant association between corporate size and all dependent variables. (2) Using ratio of foreign sales as an indicator for multinationality. Similar results to previous regression results were found with two exceptions: a weak association between multinationality and CSDTQ (coef. -.169215 and P 0.071), and a negative association with CSDsaq (coef. -.9895657 and P 0.011). (3) Using number, not proportion, of non-executive directors, as in the studies of Brammer & Pavelin (2006, 2008). Two differences from previous regression results were found: it is not associated with CSDars, and shows a weak association with CSDarq (coef. .0132742). (4) Using internet news as an indicator for media pressure, as an alternative to printed news, which is considered a common indicator in previous literature. By contrast with previous regression results, a non-association with CSDars was found.

#### **4.5 Robustness of Results**

Two types of robustness checks are performed: using robust regression which is considered useful to deal with the heteroskedasticity problem, and using Quantile (median) regression which is considered an appropriate alternative to linear regression in analysis data concerning corporate disclosure. (1) Robust regression is an option in regression analysis in the Stata programme. As noted in linear-regression diagnostics, the problem of heteroskedasticity might exist. Robust regression deals with the problem of outliers in the regression model.



Robust regression uses a weighting scheme which leads outliers to have less impact on coefficient estimates, so robust regression generally produces different coefficient estimates. Four regression models (1, 3, 4, and 6) are performed again, using the robust option<sup>43</sup>. The robust regression results, not reported, regarding models 3 and 6 (CSDT, and CSDTQ) are largely consistent with previous regression results. The robust regression results for model 1, (CSDars) show there is no association between both substantial shareholders and media pressure, and quantity of disclosure in annual reports, while these variables were significantly associated in reported regression results. Robust regression results concerning model 4, (CSDarq) also show that there is no association between board size and quality of disclosure in annual reports, while there is a significant association between them in reported regression results. In general, the robust regression reveals a limited influence on regression results, indicating that the influence of the heteroskedasticity problem on regression results might be limited. (2) Quantile regression has been suggested as an appropriate solution for linear-regression problems. Quantile regression cannot be performed with panel data, so Quantile regression is performed with 6 models in both 2005 and 2006. Table 8.22 provides Quantile regression results. Generally, Quantile regression yields weak results which are not consistent, to a certain extent, with reported regression results. Quantile regression results are not consistent between the two years, but in general, they improve in 2006. The results reflect non-association between corporate characteristics variables and CSD, which is not consistent with previous literature and reported regression results. At the same time, the results tend to confirm the association between media pressure and CSD. In addition, Quantile regression results seem to provide evidence that supports the association between corporate governance variables and CSD. Therefore, it appears that Quantile regression is not an appropriate method for current data.

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<sup>43</sup> Stata command is  
`xtreg CSDars PRO CSnoe TA DMAfc BS NEDp CRC SS MP, vce(robust)`

Table 8.22: Quantile regression results

	Dependent variables					
	<u>CSDars</u>	<u>CSDsa</u>	<u>CSDI</u>	<u>CSDarg</u>	<u>CSDsaq</u>	<u>CSDTQ</u>
Part 1: 2005						
PRO	21.59468	.8571008	-.7832746	.0126451	5.74	.1531192
CSnoe	7.788607	.086098	1.772563	.0427776***	1.51	.0581943***
TA	17.12113*	.6437233*	1.985439	.0266703	2.75	.0485699
DMAfc	.5652989	-.0136385	-.0061851	-.000301	-2.76*	-.0015858
BS	6.727721***	.359782***	1.143683***	.0078885**	2.02***	.0214582***
NEDp	58.27986	1.079627	5.375073	.0534386	4.61	.0247101
CRC	33.90306**	18.84835***	14.59183***	-.015432	6.95*	.0559349
SS	-.6666365**	-.0018731	-.035062	-.0009306*	-6.39	-.0020091**
MP	.2338301	.7358981***	.6663199***	-.0003179	.0111111***	.01061***
Pseudo R <sup>2</sup>	0.1358	0.1943	0.2190	0.0762	0.0407	0.0938
Part 2: 2006						
PRO	-39.0605	4.53927	3.153269	-.1893655	.0309781	.3272851
CSnoe	13.8409***	1.270365*	1.567913	.0368938***	-.0049075	.053692**
TA	16.91817**	1.558885	3.874264	.0021466	.0080114	.0502263
DMAfc	.6276023	-.0689105	-.107656	-.0006858	.0004394	.0007645
BS	4.993912***	.7811798***	1.887763***	.0104835***	.0021718*	.033103***
NEDp	91.06226***	4.408851	17.16452**	.1427767**	.0080188	.3327236*
CRC	18.05431	24.5387***	12.28142***	.0159829	.0115755	.0583493
SS	-.739956***	-.1013946***	-.1770951**	-.0011418**	-.0002683	-.0031167***
MP	.5397901**	.1394528***	.1569477**	.0004159	.0216287***	.018205***
Pseudo R <sup>2</sup>	0.1785	0.1311	0.1908	0.1473	0.1159	0.1994

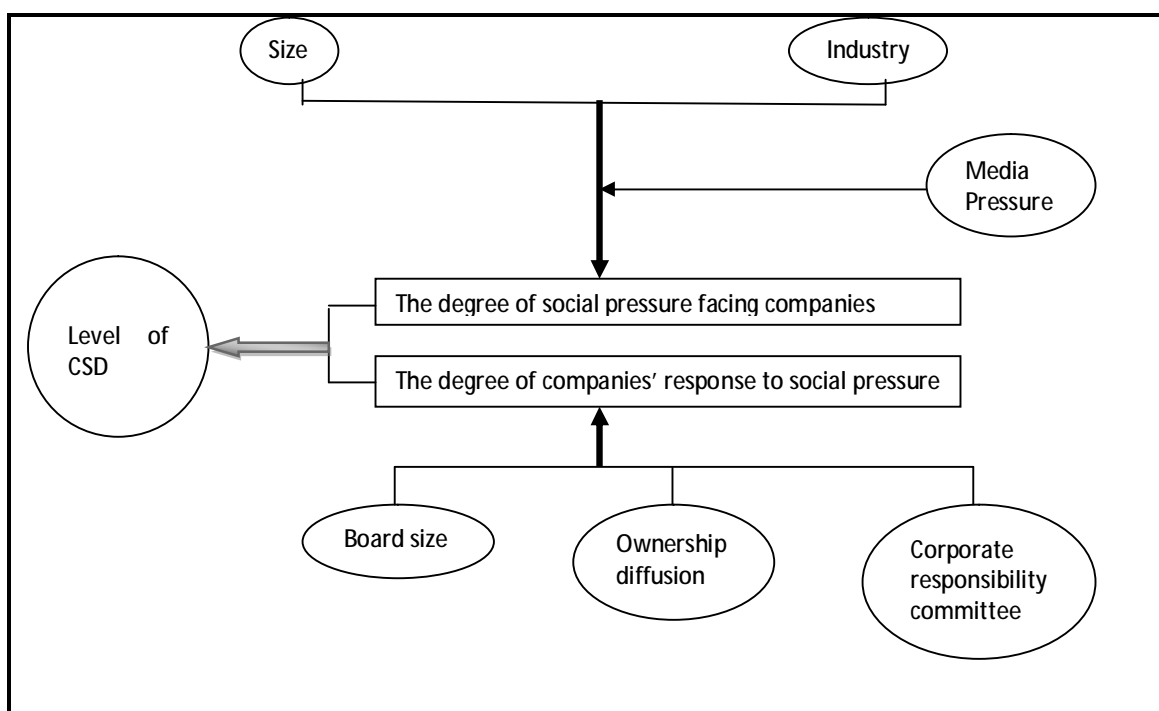
## 5. CONCLUSION

The purpose of this chapter is to examine a suggested framework for determinants of both quantity and quality of CSD, in both annual and stand-alone reports. Both correlation and regression tests are performed, and the results of both tests support, to a large extent, the suggested framework for quantity of CSD, and, to a lesser extent, the quality of CSD. The suggested framework depends on the basic premise that social disclosure is a function of two factors: quantity of social pressure that faces a company, and how a company responds to this social pressure.

According to the empirical results of this chapter, the level of quantity and, to a lesser extent, the level of quality of CSD can be interpreted in the following context: Larger industrial companies that have more media coverage attract more attention from the community, and consequently they are subject to more scrutiny concerning their social

responsibilities. These companies thus face a high level of social pressure. In addition, companies with a large board size and wide ownership, that have a corporate responsibility committee, are more likely to respond positively to this pressure. Therefore, the level of CSD will be determined according to corporate characteristics (size and activity), media coverage, governance practices (board size and corporate responsibility committee) and ownership-diffusion. Based on these results, the following figure explains the modified determinants of level of social disclosure in a given company according to empirical results:

**Figure 8.4: Modified determinants framework at the company level**



The results referred to non-association between geographical extension in other countries and level of CSD, indicating that multinational companies are more interested in the community of the home country, than in foreign countries. This result could be due to the fact that the geographical extension is, in most cases, in less developed countries that are most likely to be less interested in CSR.

The empirical results in this chapter provide clearer evidence than previous studies on the impact of governance practices on CSD. This result reflects the role of corporate governance practices in bringing companies closer to their communities. It appears that a corporate responsibility committee, as a governance practice, has a stronger effect on CSD.

This chapter addressed the following questions: (1) what are the determinants of CSD in both annual and stand-alone reports? The previous figure informed the factors that determine the level of CSD. (2) Are these determinants related to both quantity and quality of CSD? It appears that all variables are related to both quantity and quality of CSD, with the exception of media pressure, which is not associated with quality of CSD. The results show that these variables are more associated with quantity of disclosure, than its quality. (3) Can we determine the accepted framework for CSD determinants? The empirical results support, to a large extent, a suggested framework, indicating that this framework is acceptable. (4) Does legitimacy theory provide us with an appropriate theoretical background to explain CSD? It appears that the idea of social pressure, a basic concept in legitimacy theory, is accepted as an appropriate explanation for CSD, and consequently, it can be argued that legitimacy theory provides an appropriate theoretical background to explain CSD.



# Chapter 9

CONSEQUENCES OF CSD

## **Chapter 9**

### **Consequences of CSD**

#### **1. INTRODUCTION**

The growing interest in CSD has led to the emergence of an important question regarding the benefits of this disclosure for companies. Does this disclosure achieve any benefits for the companies? Those companies that voluntarily disclose social responsibility information are convinced that this disclosure has value. Gray (2006) argued that the steady increase in social and environmental reporting over the last 15 years, suggests that a proportion of managers sees a business case for such activity. Therefore, such reporting is perceived by managers to be of value (Gray, 2006: 806). It is important to clarify the benefits that would have been achieved by the companies. The consequences of CSD can be considered as feedback from society on CSD, and could be seen as an answer to the question; does such disclosure achieve its objectives? This chapter focuses on analysing the benefits/consequences of CSD. The focal point of this chapter is to clarify that CSD is just a communication tool, in the context of legitimacy theory, alleviating pressure from the community, and without direct economic dimensions.

It can be argued that the study of consequences of CSD is related to identifying the motivations for this disclosure, as the motives of CSD represent the expected benefits of this disclosure. Generally, the drivers behind voluntary social and environmental disclosure, are achieving financial benefits for companies, and/or complying with external pressure. With regard to the first driver; it indicates that CSD may positively affect the economic performance of the companies. There is a divergence of views at the theoretical level, and at the level of results provided by the empirical studies, in this regard. With reference to the

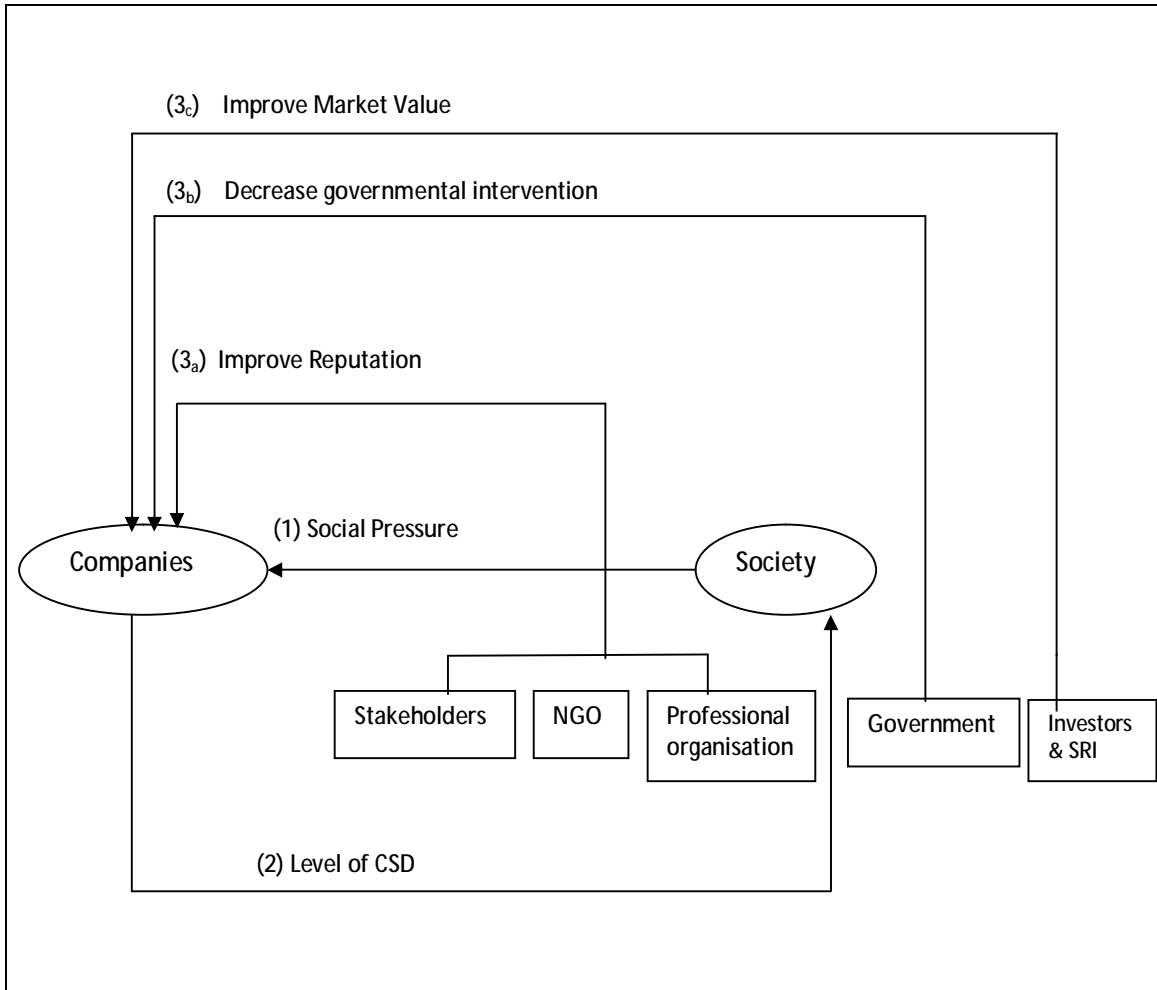
second driver, CSD is a response to external pressure. It is considered a basic component of legitimacy theory, which considers the most appropriate theory to explain CSD. According to this idea, the companies may be seeking to alleviate social pressure by improving their social reputation, and CSD is playing an important role in this process.

It can be argued that, according to legitimacy theory, companies use CSD as a tool for legitimising their activities, in the face of social pressure. Therefore, the primary consequence of CSD is to improve corporate social reputation, while there is no clear theoretical link between CSD and financial performance. To examine this idea, this chapter explores the impact of CSD on both corporate social reputation, and corporate financial performance. The chapter extends the previous studies in two ways; firstly, by concentrating on the quantity and quality of CSD on both annual and stand-alone reports, and secondly, by using Tobin's Q as an indicator of corporate financial performance.

## **2. HYPOTHESIS DEVELOPMENT**

According to legitimacy theory, companies use social disclosure as a legitimacy tool, as CSD can be considered a part of corporate legitimacy strategy. Actually, the companies voluntarily provide social and environmental information, to satisfy the community's desire to identify the degree of commitment of companies toward their social responsibilities. Therefore, CSD is directed at all sectors in the society and as a result, the consequences of this disclosure depend on its importance to each sector, and the ability of these groups to influence companies (figure 9.1). Solomon (2000) indicated that the difference between environmental and financial reporting is in the greater emphasis attached to some users (employees, legislators and regulators), and the less significant emphasis attached to others (shareholders).

Figure 9.1: Theoretical framework for consequences of CSD



The previous figure shows that companies provide social disclosure for different sectors (stakeholders, NGOs, professional organisations, governments, investors and SRI) of society. It can be argued that the consequences of CSD depend on the extent to which CSD appears to be important to each sector. In this context, it appears that stakeholders, NGOs and professional organisations are more interested in CSD than other groups, and they can react to social disclosure, by improving companies' social reputation, while the importance of CSD for investors is still a disputed concern. In addition, the low proportion of socially responsible investors in the financial market, reflects the limited influence of this sector on companies, and consequently indicates a limited financial impact on CSD. Governments deliver CSD as a



means to evaluate the status of companies' commitment to the concept of corporate social responsibility. Governments can therefore determine the need to enact various regulations that organise the impact of companies' activities, on the environment and community as a whole. It can be expected then that CSD could aim to alleviate governmental intervention in companies' activities, but it is difficult to examine this objective empirically. Therefore, the following general hypothesis can be formulated:

**General hypothesis:** The consequence of CSD is to improve the corporate social reputation, while it has no direct impact on corporate financial performance.

From this general hypothesis, two other hypotheses will be examined as follows:

## **2.1 Corporate Reputation**

According to legitimacy theory, corporate reputation is considered to be the result of a legitimisation process. "Corporate image and corporate reputation are considered as the global outcomes of the process of legitimisation" (Nguyen & Leblanc, 2001: 227). Quevedo-Puente, et al. (2007) argued that corporate social performance (CSP) and corporate reputation (CR) are two closely linked concepts, which include the relationship between the company and its stakeholders. These concepts are linked by company legitimisation, which considers the process that translates past performances into future expectations. Legitimation transforms corporate social performance, an objective flow variable, into corporate reputation, a perceptual stock variable. There are some views that link CSD and corporate reputation. Hooghiemstra (2000) argued that narratives may contribute to the building of corporate reputation therefore; it is assumed that companies can try to influence their reputation by engaging in CSD (Hooghiemstra, 2000: 58). Michelon (2007) argued that once a company has a strong reputation, CSD can be used to preserve such a reputation (Michelon,

2007: 7). Bebbington et al. (2008) stated that there is some evidence that companies use CSR reports to manage their reputation risks;

- Co-operative Financial Services stated that its reporting approach seeks to build upon its reputation as being amongst the most socially responsible businesses in the world.
- Global reporting initiatives (GRI) 2002, confirms the perception of a link between reputation risk-management and CSR reporting, when it is stated that the process of developing a sustainability report, provides a warning of trouble spots, in both reputation and brand management.
- KPMG's 2005 survey of CSR reporting claims that one of the business drivers for CSR is to maintain a good brand and reputation (Bebbington et al., 2008: 341).

The expected relationship between CSD and corporate reputation can be theorised in the context of two ideas. Firstly, corporate communication strategy plays an important role in constructing corporate reputation, and CSD is considered part of corporate communication strategy. Secondly, corporate social responsibility activities positively add to corporate reputation, and CSD is considered an interpretation of the corporate social responsibility concept. In the context of the first perspective, corporate reputation is considered a socially constructed concept, which reflects the stakeholders' perceptions of how well companies' responses are meeting the demands and expectations of different stakeholders (Nguyen & Leblanc, 2001: 228). Corporate image involves people's perceptions of the company, which results from information transmitted via the company's communications. Lewis (2001) stated that reputation is a product, at any particular moment, of a mix of behaviour, communication and expectation. Gray & Balmer (1998) presented an operational model for managing corporate reputation and image, suggesting that companies gain their reputation or image through their communication (Gray & Balmer, 1998: 696). Espinosa & Trombetta (2004) argued that the communication strategy of a company is crucial in determining its image, and

quality of annual report disclosures is a natural element of a company's communication strategy. Lewis (2003) argued that if companies are to engage the public in the 21<sup>st</sup> century, their communication must give social responsibility a bigger and more central role. Ethics and values will play a more prominent role in consumer choices.

Concerning the second perspective, corporate reputation is affected by, among other things, the quality of management, the company's financial soundness and its demonstration of awareness of social matters (Hooghiemstra, 2000:58). Lewis (2003) stated that there are six major facets of reputation which determine overall reputation: leadership, quality of products/services, financial performance, treatment of staff, environmental responsibility and social responsibility.

Therefore, the relationship between CSD and corporate reputation can be theoretically justified, and the following hypotheses can be formulated:

**Hypothesis<sub>1a</sub>:** The quantity of social disclosure has a positive impact on corporate social reputation.

**Hypothesis<sub>1b</sub>:** The quality of social disclosure has a positive impact on corporate social reputation.

## **2.2 Market Value**

Theoretically, an increased level of disclosure (either increased quantity of disclosure, or quality of disclosure, or both) reduces the information asymmetry between the company and its shareholders, or among potential buyers and sellers of company shares. This, in turn, should reduce the discount at which company shares are sold and hence lower the costs of issuing capital (Leuz & Verrecchia, 2000: 92). Plumlee, et al. (2007) posited that, theoretically, voluntary disclosure quality, influences firm value through direct effects on a

company's cost of equity capital, and/or indirect effects on a company's cash flow (Plumlee, et al, 2007: 3). Rahman (2002) argued that corporate voluntary disclosure is considered one of the determinants of market value, with internal and external corporate governance factors.

The theoretical link between CSD and economic performance is based on two pillars: (1) the increasing interest in CSR suggests that investors may be interested in social responsibility information in investment decisions, and (2) the accompanying increase in socially responsible investors creates more demand for social responsibility information. With regard to the first pillar, a number of studies indicate the increasing interest in CSR, and the potential positive relationship between corporate social performance and corporate financial performance. Therefore, investors are interested in corporate social performance information when making investment decisions. In this context, Shane & Spicer (1983) indicated that empirical studies have investigated the general question of whether investors have found corporate social information useful for investment decisions, and, in general, it is not clear that investors actually use corporate social information in making investment decisions (Shane & Spicer, 1983: 522). The empirical evidence, concerning the argument that investors are interested in CSD, is mixed. Some early studies support this argument. Elis (1972) found a weak preference for reports which include human resource information. Hendricks (1976) found that the inclusion of human resource information in reports, affects stock investment decisions. Acland (1976) found that analysts use behavioural indicators in their investment decisions. Other early studies failed to support this argument. Buzby & Falk (1979) found that social information is not important for university investors. McNally, et al (1982) found that social and environmental information is of little use to the financial community. Recently, Solomon & Solomon (2006) noted a moderate request from institutional investors on public, social and environmental information. Valore et al. (2009) surveyed both individual investors and financial consultants about social investment. Individual investors

showed moderate awareness of the socially responsible investment concept, given that only 36.8% had heard of it before, and 0.05% of the sample uses non-economic criteria to choose their investment. Concerning financial consultants, nearly all of them (96.5%) are aware of SRI, and 65% would not invest in companies with better social performance, unless returns are equal or higher. Therefore, the idea that investors are using social information may seem uncertain, and needs further testing. On the other hand, Murray et al. (2006) argued that financial markets are offering a big opportunity for international capitalism to re-invent itself in a new form that is compatible with the exigencies of sustainability, and the important factor in achieving this is information, and in particular, information about social responsibility activities. At the same time, they cast a light on an important point concerning the usefulness of inside disclosure in this matter, in arguing that social and environmental disclosure through annual reports fulfils this role, but this disclosure is inadequate, because it fails to offer a complete picture of a company's social responsibility activities (Murray et al., 2006: 229). In addition, one can query the source of social information which persuades the investor to obtain such information.

With regard to the second pillar, the growing percentage of socially responsible investors (SRI) is a strong factor in the expected positive impact of social disclosure on economic performance. Ullmann (1985) posited that ethical investors could pay a premium price for shares in socially responsive companies. Murray et al. (2006) argued that the growth in ethical investment funds, reverses the traditional hypothesis that all investors are exclusively interested in a financial appraisal of their investments, so social and environmental information may well offer an important source of direct input to ethical investors' decisions (Murray et al., 2006: 232). In this context, an important question is raised about the size of social responsible investment in financial markets, and whether this size is considered adequate to influence companies.

In previous literature, the relationship between CSD and the economic performance of a company was studied from two points of view. One examined economic performance as a determinant of CSD, and the other examined economic performance as a result of CSD. The empirical results of the studies provided inconclusive evidence about the relationship between CSD and economic performance. Given the ambiguous theoretical opinions and empirical results, the null hypothesis appears to be most appropriate, and more consistent with legitimacy theory.

Hypothesis <sub>2a</sub>: The quantity of CSD has no impact on the corporate market value.

Hypothesis <sub>2b</sub>: The quality of CSD has no impact on the corporate market value.

### **3. METHODOLOGY**

#### **3.1 Empirical Models and Data**

The objective of this chapter is to explore the consequences of CSD through the study of both the social and the economic impact of CSD, using the following empirical models:

##### **3.1.1 Social impact**

This model examines the influence of CSD on corporate social reputation, using the sample of 317 companies in 2005, and 327 companies in 2006. The dependent variable is corporate social reputation, which will be measured according to whether the company was located in the CSR index or not. Ullmann (1985) argued that one approach to measuring social performance is the development of reputational indices, which list companies exhibiting good or bad social performance. Collison et al. (2009) interviewed management of companies listed in FTSE4Good, and asked them about the possible reputational risk that companies

could encounter if they were not listed in FTSE4Good. The results indicated that inclusion in indices had a significant impact on companies' reputation. Different organisations are interested in measuring the social performance of companies and issuing rankings for companies based on this performance, such as the EIRIS database in the UK, and the KLD database in the USA. Also, some media are interested in issue ranking for companies based on their social performance such as Business Ethics 100 Best Corporate Citizens, Fortune Most Admired Companies, and Britain's most admired companies issued by Management Today. In addition there is Dow Jones Sustainability Index DJSI and FTSE4Good.

Previous studies used this approach to measure reputation; both Toms (2002) and Hasseldine et al. (2005) used Britain's Most Admired Companies' index, and Michelin (2007) used DJSI. Therefore, corporate social reputation will be measured as a dummy variable, which equals:

1, if the company is included in the social responsibility index, and

0, otherwise

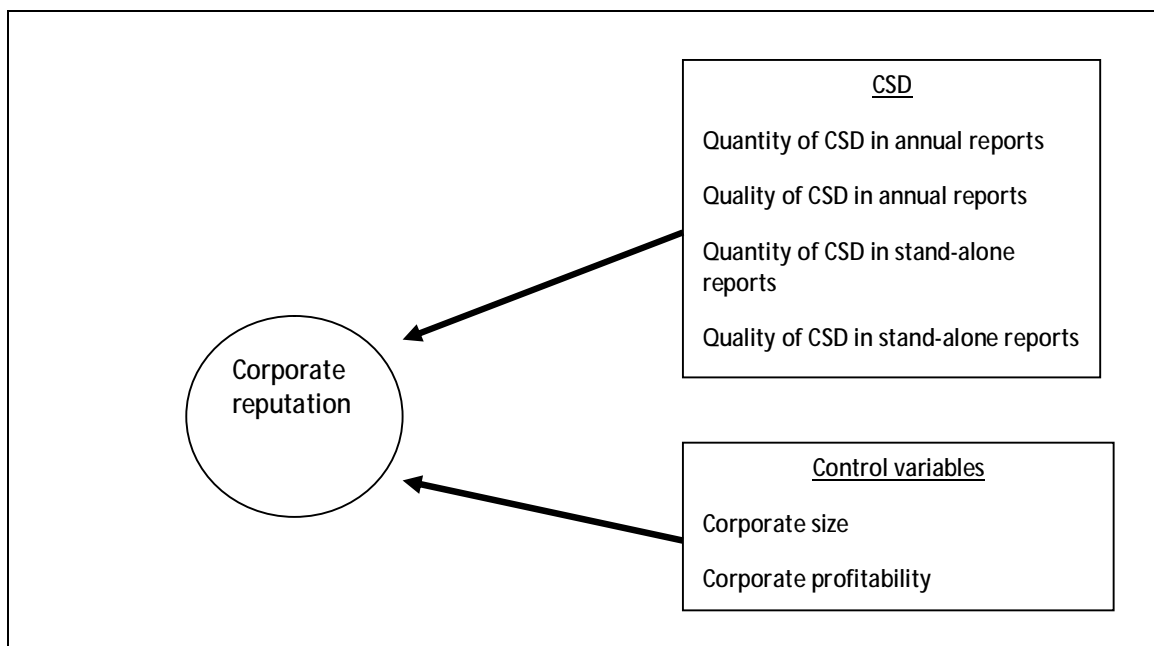
Six social indices will be used, (FTSE4Good, Dow Jones Sustainability Index, Britain's Most Admired Companies, Fortune Global Most Admired Companies, Business in the Community and Global 100 Sustainability Companies) and then points are collected for each company. Corporate social reputation will be measured in both 2006 and 2007, as the empirical model examines the relationship between CSD in a given year, with corporate reputation in the following year.

The independent variables comprise four variables, which represent the quantity and quality of CSD, in both annual and stand-alone reports. The measurement of independent variables was discussed in detail in chapter 4. In addition, two control variables will be used in the model; corporate size and corporate profitability.

## Specified model

The following figure presents the social impact mo

Figure 9.2: Social impact model



The following regression model will be used to examine the relationship between corporate social reputations and lagged corporate reputation:

$$CR = \beta_0 + \beta_1 CSDars + \beta_2 CSDarq + \beta_3 CSDsa + \beta_4 CSDsaq + \beta_5 CSta + \beta_6 PRO + \varepsilon$$

Where:

$\beta_0$         intercept

$\beta_1$  to  $\beta_8$    coefficient for slope parameters

$\varepsilon$         error

Dependent variable

CR        Corporate social reputation

Independent variables

CSDars    the quantity of social disclosure in annual reports



CSDarq the quality of social disclosure in annual reports

CSDsa the quantity of disclosure in stand-alone reports

CSDsaq the quality of disclosure in stand-alone reports

Control variables

CSta Corporate size measured by total assets

PRO Financial performance (profitability) measured by the return on assets

### **3.1.2 Financial impact**

To examine the financial impact of CSD, two tests will be used. The first will examine the correlation between CSD and the profitability ratios, profit margin %, EBIT margin % (profit before interest / turnover), EBITDA (profit before interest + depreciation + amortisation of intangibles /turnover) and average annual stock-earnings yield. This correlation test is based on a sample of 317 companies in 2005, and 327 companies in 2006. The profitability ratios have been obtained from the FAME database.

### **Corporate value model**

This model examines the influence of CSD on corporate market value, which represents a proxy for corporate financial performance, in 2006 and 2007. The sample for this model comprises FTSE 100 companies in 2005 and 2006. The dependent variable is corporate market value, which will be measured using Tobin's q. Tobin's q represents the ratio of the market value to the replacement cost of assets. If the value of the ratio is less than one, this means less profitable investment opportunities are expected, and if the value is more than one, this means more profitable investment opportunities are expected (Wahba, 2008: 92). It was developed by James Tobin. It is widely used as an indicator of intangible value in economics research, and in the international business literature (Dowell, et al, 2000:1063). Tobin's Q has been used to explain a number of diverse corporate phenomena, such as:

- Cross-sectional differences in investment and diversification decisions.

- The relation between managerial equity ownership and corporate value.
- The relation between managerial performance and tender offer gains.
- Investment opportunities and tender offer responses.
- The relation between industry structure and corporate profitability.
- The effect of deposit constraints on bank lending.
- The motive for corporate cash holdings (Chung & Pruitt, 1994:71; Erickson & Whited, 2006: 7).

The benefit of Tobin's  $q$  is that it makes comparisons between companies relatively easier than comparison based on stock returns or accounting measures where a risk adjustment or normalization is required (Allayannis & Weston, 2001: 251). Heal, (2005) mentioned that “one robust result seems to be that superior environmental performance is correlated with high values for Tobin's  $q$ ” (Heal, 2005:402).

Erickson & Whited, (2006) discussed a wide variety of estimates of Tobin's  $q$  by using various combinations of the different algorithms. Two measures of preferred equity, four measures of debt, and five measures each for inventories and for the capital stock can be used to compute 200 different estimates of Tobin's  $q$ . they summarize that to examine five estimates of Tobin's  $q$  (book, LB, LR, NB, and EW) and they find that none of these estimates is of high quality  $q$  proxy.

Some studies used  $Q$  as a proxy of firm value; Allayannis & Weston, (2001) examined the impact of using foreign currency derivatives on firm value (Tobin's  $q$ ), Dowell, et al, (2000) find that companies adopting a stringent global environmental standard have higher market values as measured by Tobin's  $q$ , Lo & Sheu, (2007) find a significantly positive relationship between corporate sustainability and its market value measured by Tobin's  $q$ .

In this study Tobin's q will be measured (as in Gomper et al., 2003; Moon, 2007) as follows:

$$\text{Tobin's } q = \frac{\text{Market value of assets} + \text{Book value of assets} + \text{market value of common stocks} - \text{book value of common stocks} - \text{deferred taxes}}{\text{Book value of assets}}$$

Independent variables are four variables which represent quantity and quality of CSD in both annual and stand-alone reports. The measurement of independent variables was discussed in detail in chapter 5.

In addition, previous literature (Allayannis & Weston, 2001; Lo & Sheu, 2007) indicated some variables that could affect the firm value, and must be excluded from the model. These variables are:

- Size – there is ambiguous evidence about the influence of corporate size on firm value. This variable will be measured by using total assets.
- Access to financial market – if the companies are not able to obtain the necessary financing, their Q may remain high because they only undertake positive NPV (net present value) projects. This variable will be measured by using a dividend dummy with value 1, if a company paid a dividend in the current year, and value 0, otherwise.
- Leverage – the company's capital structure has an impact on its value, so it must be able to control the capital structure effect. This variable will be measured by total debt, divided by total assets.

- Profitability – if the company is more profitable, it is more likely to trade with a premium, than a less profitable one, and thus increase its Q. This variable will be measured by return on assets, which is defined as the ratio of net income (loss) to total assets.
- Investment growth – the corporate value depends on future investment opportunities. This variable will be measured by the ratio of capital expenditure to sales.
- Industrial diversification – there is ambiguous evidence about the influence of industry diversification on firm value. While some theoretical arguments suggest that industry diversification leads to increase in the firm value, there is some empirical evidence showing that industry diversification is negatively related to firm value. This variable will be measured as a dummy variable with value 1, if a company operates in more than one sector, and value 0, otherwise.
- Multinationality – there are some theoretical arguments suggesting that geographical diversification increases value. This variable will be measured by the percentage of sales to foreign countries to total sales (for the manufacturing companies), or the percentage of foreign branches to total branches (for non-manufacturing companies).

The following regression model will be used to examine the relationship between CSD and lagged corporate market value:

$$TQ = \beta_0 + \beta_1 CSDars + \beta_2 CSDarq + \beta_3 CSDsa + \beta_4 CSDsaq + \beta_5 CS + \beta_6 AFM + \beta_7 LEV + \beta_8 CP + \beta_9 IG + \beta_{10} ID + \beta_{11} DMA + \varepsilon$$

Where:

$\beta_0$	intercept
$\beta_1$ TO $\beta_{11}$	coefficient for slope determinants
$\varepsilon$	error
TQ	firm value measured by Tobin's q
Independent variables	

CSDars	quantity of social disclosure in annual reports
CSDarq	quality of social disclosure in annual reports
CSDsa	quantity of social disclosure in stand-alone reports
CSDsaq	quality of social disclosure in stand-alone reports
Control variables	
CS	corporate size
AFM	access to financial market
LEV	leverage
CP	corporate profitability
IG	investment growth
ID	industry diversification
DMA	degree of multinational activities

## 4. RESULTS

### 4.1 Descriptive Statistics

Descriptive statistics for CSD was discussed in detail in chapter 5. Regarding the corporate reputation variable, table 9.1 provide descriptive statistics for this variable. the average score for corporate reputation is 1.5 in 2006, and 1.36 in 2007, and the frequencies of corporate reputation score in table 1 is 0.9. The table indicated that 102 companies (32.2%) are not listed in any social index in 2006, and these companies increase to 123 companies (37.6%) in 2007. The majority of companies (67.8% and 62.4% in 2005 and 2006 respectively) are listed in at least one social index, and it appears that most of these companies are listed in one or two social indices. In 2006, 89 (32.2%) companies are listed in one social index, and this increased to 94 companies (28.7%) in 2007. In addition, 54 companies (17%) are listed in two social indices and this decreased to 41 companies (12.5%) in 2007. Only five companies are listed in six social indices in both 2005 and 2006.

Table 9.1: Corporate reputation descriptive statistics

Social reputation score	Part 1:2006	Frequency	Percentage	Valid percentage	Part: 2 2007	Frequency	Percentage	Valid percentage
0		102	31.0	32.2		123	36.6	37.6
1		89	27.1	28.1		94	28.0	28.7
2		54	16.4	17.0		41	12.2	12.5
3		28	8.5	8.8		27	8.0	8.3
4		28	8.5	8.8		25	7.4	7.6
5		11	3.3	3.5		12	3.6	3.7
6		5	1.5	1.6		5	1.5	1.5

The descriptive statistics for FTSE 100 companies (not reported) show that, with regard to CSD, the quantity of CSD in annual reports is between 2 and 500 sentences in 2005, and between 7 and 691 sentences in 2006. Minimum quantity reflects that all FTSE 100 companies provide CSD in their annual reports. The maximum quantity is the same maximum for the sample as a whole, indicating that FTSE 100 companies are more interested in CSD within the sample. The average quantity of CSD in annual reports is 148.92 sentences in 2005, and increased to 178.84 sentences in 2006. Comparing this average with the average of the whole sample (102.24 and 116.89 sentences in 2005 and 2006 respectively) confirms the notion that FTSE 100 companies are more interested in CSD within the sample. The average quality score for CSD in annual reports is 0.48 in 2005, and this increased to 0.51 in 2006. Comparing this score with the average score for the sample as a whole (0.4280 and 0.4258 in 2005 and 2006 respectively), suggests that FTSE 100 companies show higher quality score within the sample. With regard to CSD in stand-alone reports, the average quantity of disclosure is 34.73 pages in 2005, and increased slightly to 35.60 pages in 2006. Comparing this average with the average of the sample as a whole (16.3531 and 16.1410 pages in 2005 and 2006 respectively), indicates that FTSE 100 companies are also more interested in corporate responsibility reports. The average quality score for stand-alone reports is 0.71 in 2005 and 0.87 in 2006. Comparing these averages with the averages of the

sample as a whole (0.245 and 0.3365 in 2005 and 2006 respectively), reflects that FTSE 100 companies are more interested in using reporting guidelines and third-party assurance within the sample.

The average of Tobin's q is approximately the same over the two-year period, (0.64 and 0.65 in 2005 and 2006 respectively). The average of industrial growth is 9.37 and 11.70 in 2005 and 2006 respectively. The average of profitability is approximately the same over the two years, 0.07 and 0.08, and the degree of multinationality over the two years is 0.50 and 0.47.

## **4.2 Social Impact**

### **4.2.1 Correlation results**

To examine the relationship between each disclosure variable and corporate reputation, a correlation analysis is performed. The correlation test is performed on six disclosure variables, representing quantity and quality of CSD in both annual and stand-alone reports, and total quantity and quality of CSD. Table 9.2 provides the correlation results between corporate social disclosure variables in both 2005 and 2006, and lagged corporate social reputation (corporate reputation in both 2006 and 2007). The consistent results in both 2005 and 2006 show a high correlation between CSD and CR. Further analysis of these results shows that CR is more correlated with social disclosure in stand-alone reports, than social disclosure in annual reports. The correlation coefficients between corporate reputation and quantity of disclosure in stand-alone reports (.501 and .515 in 2005 and 2006 respectively), is higher than the coefficients between corporate reputation and quantity of disclosure in annual reports (.400 and .427 in 2005 and 2006 respectively). In addition, the correlation coefficients between corporate reputation and quality of disclosure in stand-alone reports (.541 and .592 in 2005 and 2006 respectively), is higher than the coefficients between corporate reputation and quality of disclosure in annual reports (.231 and .364 in 2005 and 2006 respectively). This result reflects the

fact that the organisations concerned with the composition of social indices are more interested in corporate responsibility reports as a means of disclosing social and environmental information, than annual reports. On the other hand, the corporate reputation is more correlated with the quality of social disclosure, than the quantity of social disclosure. The correlation coefficients between corporate reputation, and variables that represent quality of disclosure, are higher than the variables that represent quantity of disclosure.

**Table 9.2: Correlation results between social disclosure and corporate reputation**

2005	CR	2006	CR
CSDars	.400** .000	CSDar	.427** .000
CSDary	.231** .000	CSDary	.364** .000
CSDsa	.501** .000	CSDsa	.515** .000
CSDsay	.541** .000	CSDsay	.592** .000
CSDt	.527** .000	CSDt	.547** .000
CSDty	.555** .000	CSDty	.634** .000

## 4.2.2 Regression results

To examine the impact of CSD on corporate reputation, a regression analysis is conducted, using both cross-sectional and panel data. Given that the dependent variable is count data, the analysis is conducted using the Poisson regression (Long & Freese, 2003). A likelihood ratio chi-squared statistic test (goodness of fit chi2) is conducted to examine over-dispersion, and the results show that Poisson distribution is appropriate.

### 4.2.2.1 Cross-sectional regression results

Table 9.3 provides Poisson regression results for each year. Generally, the results in both 2005 and 2006 appear to provide evidence that CSD is positively associated with corporate



reputation, indicating that increasing the level of CSD leads to increasing social reputation. In 2005, the results show that variables of CSDars, CSDsa and CSDsaq are positively associated with CR, while CSDarq is not associated. This result indicates that, consistent with previous correlation results, corporate responsibility reports have more impact on corporate social reputation, than social disclosure in annual reports. Quality of disclosure in stand-alone reports has the strongest association with corporate reputation (coef. .2073901), indicating that, consistent with previous correlation results, the quality of social disclosure, in particular the quality of stand-alone reports, has more impact on corporate reputation, than the quantity of social disclosure. This result suggests that organisations concerned with the composition of social indices could be more interested in corporate responsibility reports, which are prepared in accordance with the corporate responsibility guidelines (such as GRI), and which have been reviewed by an independent auditor. Similar results emerge in 2006, in which CSDarq, CSDsa and CSDsaq are positively associated with corporate reputation, while CSDars is not associated. CSDarq and CSDsaq are more associated with CR (coef. .8515095, and .283274 respectively), and CSDarq has the greatest impact on CR (coef. .8515095). This result confirms that quality of disclosure has a stronger impact on corporate social reputation.

These results are consistent with the results of Toms (2002) and Hasseldine et al. (2005), which indicated that social (or environmental) disclosure significantly adds to the creation of social (environmental) reputation, but these previous results are extended by providing evidence that stand-alone reports have more effect than annual reports. It is also consistent with the findings of Hasseldine et al. (2005), which indicated that quality of disclosure has a stronger effect on environmental reputation, than quantity of disclosure. With regard to hypothesis 1, which refers to a positive impact for quantity and quality of CSD on corporate reputation, the overall results appear to provide evidence that supports this hypothesis.

Table 9.3: Cross-sectional regression results for each year

	Part 1:2005		Part 2: 2006	
	Coef.	P	Coef.	P
CSDars	.0012616	0.048	.0001312	0.805
CSDarq	.0289847	0.935	.8515095	0.026
CSDsa	.0033046	0.017	.0028892	0.063
CSDsaq	.2073901	0.005	.283274	0.000
PRO	.2245775	0.784	.794475	0.174
CSta	.5139339	0.000	.4936808	0.000
Cons.	-4.75368	0.000	-5.047805	0.000
Pseudo R2	0.1954		0.2520	
Goodness-of-fit chi2	246.8629		291.4396	
Prob > chi2	0.7111		0.5312	

#### 4.2.2.2 Panel data analysis

The advantage of panel data regression is that it takes times effect into account. Table 9.4 provides Poisson regression results with panel data. The results of panel data regression are largely consistent with cross-sectional regression analysis. It appears that all disclosure variables are significantly associated with corporate reputation, and quality of disclosure is more associated with CR, than quantity of disclosure (coef. .6582335 and .4280455 for CSDarq and CSDsaq respectively)

The consistent regression results (cross-sectional and panel) provide evidence that both annual report disclosure, which reports specific activities, and audited corporate responsibility reports that are prepared using reporting guidelines, can positively add to corporate social reputation.

Table 9.4: Poisson regression with panel data

	Coef	P
CSDars	.0018685	0.000
CSDarq	.6582335	0.050
CSDsa	.0040755	0.012
CSDsaq	.4280455	0.000
PRO	-1.138927	0.060
CSta	.0685233	0.023
Cons.	-1.026235	0.001
Wald chi2(6)	149.36	
Prob > chi2	0.0000	

Likelihood-ratio test of alpha=0: chibar2(01) = 30.79 Prob>=chibar2 = 0.000

### 4.2.3 Sensitivity analysis (alternative measures)

Two additional sensitivity analyses are performed: (1) Using two variables to measure the level of CSD, total quantity of social disclosure in both annual and stand-alone reports, and total quality of disclosure in both annual and stand-alone reports. (2) Using the number of employees as an alternative measure of corporate size. These two analyses provide results that are consistent with previously reported results.

## 4.3 Financial Impact

It is hypothesised that CSD has no direct economic impact, and to examine this hypothesis, two types of analyses are performed. The results of these analyses follow:

### 4.3.1 Profitability ratios

To examine the potential financial impact of CSD, the correlation between CSD and profitability ratios is explored. The correlation results (Table 9.5) show that there is no correlation between pre-social disclosure and profitability ratios. This result is not consistent with Parsa & Kouhy, (2001), who show that profitability was found to be positively associated with CSD. This result is consistent with mainstream studies that examined the

relationship between profitability and CSD, from the point of view that profitability is a determinant of CSD, and indicated a non-relationship between them.

Table 9.5: The correlation results between social disclosure and profitability ratios

Part 1:2005	Profit margin	EBIT	EBITDA	Earnings yield	Part2: 2006	Profit margin	EBIT	EBITDA	Earnings yield
CSDar	.061 .351	-.058 .334	-.011 .871	-.161* .015	CSDar	.047 .466	-.035 .553	-.013 .843	-.017 .786
CSDary	.055 .406	-.060 .318	.007 .922	-.117 .081	CSDary	.081 .202	.030 .617	-.030 .659	.003 .958
CSDsa	-.007 .912	-.014 .817	-.011 .874	-.078 .241	CSDsa	.000 .997	.033 .585	.053 .442	.049 .448
CSDsay	-.034 .615	.087 .158	.084 .228	-.017 .809	CSDsay	.046 .478	.014 .817	.090 .187	.075 .249
SCDt	.005 .939	-.020 .736	-.010 .881	-.090 .178	SCDt	.003 .964	.026 .662	.053 .436	.041 .523
CSDty	-.015 .825	.067 .272	.082 .227	-.016 .816	CSDty	.053 .403	.017 .781	.080 .237	.068 .290

### 4.3.2 Corporate market value

Corporate market value is considered an indicator of the actual position of a company in financial markets. Analysis of the impact of CSD on corporate market value could provide a clear indicator of the importance of CSD to investors.

#### 4.3.2.1 Correlation results

To examine the relationship between each disclosure variable and corporate market value, correlation analysis is performed. Table 9.6 presents the correlation results between corporate market values, as measured by Tobin's Q. The results show that there is no significant correlation between CSD and TQ, with the exception of the significant correlation between CSDarq and TQ in 2006.

Table 9.6: The correlation results between social disclosure and corporate market value

2005	TQ	2006	TQ
CSDars	.037	CSDar	.168
	.739		.110
CSDarq	.017	CSDary	.406**
	.882		.000
CSDsa	-.088	CSDsa	.132
	.431		.208
CSDsaq	-.159	CSDsay	.131
	.150		.215
CSDt	-.083	CSDt	.147
	.454		.162
CSDtq	.037	CSDty	.189
	.166		.071

#### 4.3.2.2 Regression results

To examine the overall impact of CSD on corporate market value, regression analysis is conducted, using panel data analysis. There are two types of panel data regression: the fixed-effects model and the random-effects model. Statistically, the fixed-effects model is the appropriate model with panel data, but sometimes the random-effects model provides better results. Therefore, the Hausman test<sup>46</sup> is conducted to choose between fixed and random-effects models. The result of the Hausman test ( $\chi^2(8) = 52.56$  and  $\text{Prob} > \chi^2 = 0.0000$ ) points to the fixed-effects model being more appropriate. Table 9.7 provides the results of OLS regression with panel data.

<sup>46</sup> Hausman test examines the null hypothesis that the coefficients estimated are the same in both the random and fixed-effects models. Insignificant P value shows that coefficients are the same in both models, and therefore the random-effects model can be used (Stock & Watson, 2003).

Table 9.7: Panel regression fixed-effects

	Coef.	Std. Err.	P	[95% Conf. Interval]	
CSDars	-.000077	.0002497	0.759	-.00058	.000426
CSDarq	.0435652	.1597368	0.786	-.2781611	.3652916
CSDsa	-.0000522	.0004936	0.916	-.0010463	.0009419
CSDsaq	-.0036744	.022818	0.873	-.0496321	.0422833
LEV	-.9981681	.2587086	0.000	-1.519234	-.4771022
IG	-.0008363	.0053712	0.877	-.0116544	.0099818
PRO	-.9637482	.370128	0.012	-1.709224	-.2182721
DMA	.4961757	.1623406	0.004	.1692049	.8231464
Cons.	.7637349	.1587751	0.000	.4439455	1.083524
R-sq: within			0.6213		
between			0.0005		
overall			0.0000		
F test that all $u_i=0$ : F(92, 45) = 8.47 Prob > F = 0.0000					

The regression results show that, consistent with previous correlation results, to a large extent, there is no significant association between CSD and corporate market value. These results appear to provide evidence that there are no financial consequences for CSD. These results are considered inconsistent with some studies which indicated an association between CSD and some financial aspects. Gozali et al. (2002) found a relationship between environmental disclosure and share price, but they differentiated between good and bad environmental news. Blacconiere & Northcut (1997) found a relationship between stock prices and the extensive use of environmental disclosure in chemical companies. Murray et al. (2006) indicated that over a period of time, total social and environmental disclosure is significantly related to market returns, even after adjusting for the size effect, and Richardson & Welker (2001), indicated, in a contrasting hypothesis, that there is a statistically significant positive relationship between the level of social disclosure and the cost of equity capital.

With regard to the second hypothesis, which indicated no impact of CSD on market value, the overall results provide evidence to support this hypothesis. The non-association between CSD and corporate market value provides an indicator that investors are not actually interested in social disclosure information when they make their investment decisions.

Despite the growing importance of corporate social responsibility practices, suggesting that the investors could draw attention to the social responsibility information in the investment decision-making process, the studies conducted to examine the extent of investor interest in social disclosure, provided mixed results, with Anderson & Frankle (1980) and Epstein & Freedman (1994) indicating that investors are interested in social disclosure, while Chan & Milne (1999) indicated that there is no significant reaction to good environmental performance, and Milne & Chan (1999) show that the decision impact of CSD is small. According to the Oracle and Economist Intelligence Unit, based on the results from the Corporate Responsibility Survey, 85% of executives and investors surveyed, ranked corporate responsibility a central consideration in investment decisions (Economist Intelligence Unit, 2005). On the contrary, Murray et al. (2006) argue that despite investors exhibiting an increasing demand for social responsibility information, there is no proven link between the price-sensitivity of social disclosure and the substantial changes in economic circumstances that this information could be signalling (Murray et al., 2006: 231). Epstein & Freedman (1994) argued that social information should theoretically be of use to various stakeholders (Epstein & Freedman, 1994: 97), and their survey results, regarding the importance of social and economic information for various stakeholders, show that most shareholders prefer economic information (83.55% prefer additional information on economic impacts and 69.83% prefer social information), while other stakeholders (employees, community groups, customers and environmental groups) prefer social disclosure, more than economic disclosure. In addition, Shane & Spicer (1983) indicated that investors use externally-produced social information in making investment decisions. Blacconiere & Patten (1994) found that there is market reaction to environmental disclosure, but this was related to environmental disasters. Balabanis et al. (1998) found a negative market reaction in the subsequent period, from companies with high CSD. These mixed

results indicate, to a large extent, that investors do not pay much attention to CSD. In addition to this debate about the importance of CSD to investors, an important concern has emerged concerning the adequacy of disclosed social and environmental information for investors. Buzby & Falk (1978) found that investors represent a reasonable source of demand for some social and environmental information, and there is inadequacy in the availability of public social and environmental disclosure. Harte, et al (1991) found that social and environmental information disclosed in annual reports was not considered adequate for investment decisions. In line with the notion of Murray, et al, (2006), that CSD in annual reports could be inadequate for investors, other studies have paid attention to another type of disclosure; private social disclosure. Private disclosure refers to the process of engagement in which one-on-one discussions between companies, and users of information, is undertaken. Solomon & Solomon (2006) indicated that investors did not consider public CSD adequate for their investment decisions, and private CSD disclosure channels were developed. Solomon & Darby (2005) indicated that private CSD is important for both companies and investors, as it is used to inform companies about information required by investors. Thus the question arises: Which source of information do investors prefer to obtain social information? The empirical results of Dhaliwal, et al (2009) indicated that investors are more interested in social performance indicators, than CSR reporting.

On the other hand, the theoretical link between CSD and financial performance depends, to a large extent, on social responsibility investment (SRI). Despite the rapid growth of SRI<sup>47</sup>, it is still a small percentage. The Social Investment Forum's 2007 Report on Socially Responsible Investing Trends identified that approximately 11% of assets under professional

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<sup>47</sup> SRI assets rose more than 324% from \$639 billion in 1995 (the year of the first Report on Socially Responsible Investing Trends in the United States) to \$2.71 trillion in 2007. During the same period, the broader universe of assets under professional management increased less than 260% from \$7 trillion to \$25.1 trillion.



management in the U.S. – nearly one out of every nine dollars – are now involved in SRI<sup>48</sup>. According to Eurosif (2006), SRIs represent between 10% and 15% of assets under management in the US and in Europe. This small proportion of SRI could explain its limited effect on financial markets. In addition to the notion of a low percentage of SRI, Miles, et al (2002) presented another view, which indicated that disclosure of social and environmental information was only partially useful for SRI assessment, because it did not focus on the relationship between this information and shareholder value and financial performance.

### **Cross-sectional regression analysis**

An OLS regression analysis is also conducted. Table 9.8 provides the results of regression analysis for each year. Regression Diagnostic procedures (Breusch-Pagan/Cook-Weisberg and VIF) do not reveal heteroskedasticity and multi-collinearity problems. With regard to heteroskedasticity, the chi-square values are small and the test is insignificant, indicating that heteroskedasticity is not a problem. In addition, VIF values show that multi-collinearity is in all likelihood, not a problem. The  $R^2$  value and the adjusted  $R^2$  value, shows that the models have a high level of explanatory power. The consistent results in both 2005 and 2006, in general, appear to provide evidence that CSD is not associated with TQ. Only CSDarq is positively associated with TQ in 2006. These results are largely consistent with panel data regression. This result is considered to be consistent, to some extent, with the findings of Plumlee et al., 2007, which examined the relationship between voluntary environmental disclosure and components of firm value (cost of capital and expected future cash flow). They documented a negative relationship between both cost of capital and expected future cash flows, and quality of voluntary environmental disclosure.

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<sup>48</sup> Social investment forum 2007 report on socially responsible investing trends in the United States.

Table 9.8: OLS regression analysis for each year

	Part 1: 2005			Part 2: 2006		
	Coef.	P	VIF	Coef.	P	VIF
CSDars	.000492	0.575	1.20	-.0000272	0.904	1.54
CSDarq	.4127673	0.500	1.17	.7961413	0.000	1.51
CSDsa	6.82e-06	0.997	1.32	-.0005813	0.399	1.30
CSDsaq	.0347794	0.723	1.28	.0316439	0.235	1.24
LEV	-3.303095	0.000	1.15	-.0671005	0.658	1.24
IG	-.0075507	0.098	1.36	-.0049784	0.000	1.26
PRO	1.193898	0.326	1.20	-.2355646	0.353	1.22
DMA	-.7073821	0.005	1.19	.0302505	0.663	1.32
F		88679.60			10.07	
Prob > F		0.0000			0.0000	
Adj R-squared		0.9999			0.4577	
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity:						
chi2(1)		0.46			0.28	
Prob > chi2		0.4955			0.5975	
Mean VIF		1.23			1.33	

### 4.3.3 Sensitivity analysis

Two additional sensitivity analyses are performed: (1) Using two variables to measure the level of CSD, total quantity of social disclosure in both annual and stand-alone reports and total quality of disclosure in both annual and stand-alone reports. (2) Using the number of employees as an alternative measure of corporate size. These two analyses provide results that are consistent with previously reported results. In addition, both robust and clustered-robust checks are performed, and the robustness tests yield results that are consistent with the regression results.

## 5. CONCLUSION

This chapter aimed to examine the consequences of CSD. It is hypothesised that CSD has a social impact, while it has no direct financial impact. The empirical results, taking into

account the previous results, supported the general hypothesis. Therefore, it can be argued that, on the one hand, CSD has a social impact, as it is positively associated with corporate social reputation, and on the other hand, there is no financial impact of CSD, as it is not associated with corporate market value. These results are consistent with the viewpoint of legitimacy theory, as the direct result of social disclosure as contained in this theory, is to influence the perceptions of society toward the impact of the activities of the company on the environment and the community as a whole, and consequently improve the company's reputation.

The results indicated that the quality of stand-alone corporate responsibility reports has a stronger effect on corporate social reputation. These results reflect the importance of these reports to interested parties, regarding corporate social responsibility. It also reflects the importance of preparing these reports, using the corporate responsibility disclosure guidelines, and having them reviewed by an independent auditor. These results draw attention to the need to focus on the development of clear standards or guidelines for the preparation of corporate responsibility reports, and to develop the process of reviewing these reports, in terms of the existence of independent parties, to carry out that process, and develop appropriate criteria for such a review.

The absence of a financial impact of CSD can be interpreted in the light of the following reasons: (1) the probability that investors are not interested in social and environmental information when they make investment decisions, (2) social responsibility investment still represents a small proportion of the business environment, (3) the financial market still does not pay appropriate attention to corporate social responsibility and its impact on the financial future of the company. On the other hand, these results raise a number of questions which may require future study. Firstly, are investors and financial markets actually interested in CSD? The answer to this question will determine and explain, to a large extent, the impact of

corporate social responsibility on the economic performance of companies. Secondly, how important is CSD as a source of information for socially responsible investors, and are these investors dependent on company disclosure, or do they prefer to rely on other sources? The last question is; is this disclosure achieving its objectives? These questions cannot be answered without precise definitions of the objectives, but these questions can be analysed in the light of what has been agreed upon by the majority of previous studies, that companies voluntarily provide social and environmental information, in response to society's interest in this matter. The results of this chapter, the positive impact of CSD on corporate reputation, suggest that CSD achieves its main objective in improving corporate social reputation, but on the other hand, good corporate reputation should be reflected in economic advantages for the company in the long term.

The findings of this chapter seem to be consistent with the argument of Bebbington et al., (2008) that one of the emerging explanations of CSD is that it could be conceived as both an outcome of, and part of, the reputation risk-management process. This explanation can be understood in the context of legitimacy theory, and it is not considered as an alternative for legitimacy theory, in the view of Adams (2008). It can be argued that both legitimacy and reputation are related concepts, and corporate reputation is considered an outcome of the legitimisation process. On the other hand, it is difficult to discuss CSD in the context of the debate between the traditional view of the corporation (Friedman, 1962, 1970), and the new view of the corporation (Freeman, 1984), where there are no decisive theoretical or practical results to support whether financial markets actually draw attention to social disclosure, or not. In this context, it can be argued that external sources of information, regarding corporate social responsibility, seem to be more important than internal resources of this information.



# Chapter 10

## CONCLUSION

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## Conclusion

### 1. INTRODUCTION

The extensive attention to the concept CSR over more than three decades is reflected in attention to the disclosure on these activities (CSD). A considerable body of literature has developed over the last three decades. This study aims to present a framework that can explain CSD in terms of both determinants and consequences. The study begins with the general argument, in line with the deductive approach, that legitimacy theory is considered the most appropriate theory to explain the phenomenon of CSD. According to legitimacy theory, CSD is a function of public pressure on companies concerning their social responsibilities. Based on this argument, the study presents a theoretical framework for both determinants and consequences. In this context, the study presents previous studies related to determinants and consequences of CSD. This presentation of previous studies includes two general limitations of these studies:

1. Limitations concerning CSD, as these studies do not provide a complete picture of CSD.

Previous literature, in most cases, has concentrated on environmental disclosure which is considered one category of CSD. Also, previous studies concentrated extensively on the quantity of CSD with less attention paid to its quality. In addition, these studies paid the most attention to CSD in annual reports and ignored other disclosure media.

2. Limitations concerning variables that are examined as determinants and consequences of

CSD. Previous studies do not provide clear theoretical backgrounds for selected variables.

Also, previous studies do not provide a clear framework for consequences of CSD and

provide mixed and ambiguous views of the association between CSD and economic performance.

The theoretical framework to explain CSD has developed, and it is interpreted in three empirical models as follows:

- The first model is to examine the determinants of CSD at a country level. The argument underlying this model is that socio-economic factors are incorporated to determine the level of awareness in society about CSR and consequently the level of CSD in a given country. Therefore, the variables that are examined as determinants of CSD in a given country are the economic level, culture dimensions and level of corporate governance.
- The second model is to examine the determinants of CSD at a company level. The argument underlying this model is that the level of CSD for each company is determined according to the degree of social pressure that faces a company and how the company responds to this pressure. Therefore, the variables that are examined as determinants of CSD are corporate characteristics, media pressure and corporate governance practices.
- The third model is to examine the consequences of CSD. The argument underlying this model is that the direct consequence of CSD is to improve corporate social reputations, and there is no direct economic consequence for it. Therefore, the variables that are examined as consequences of CSD are corporate social reputations and corporate values measured by Tobin's q.

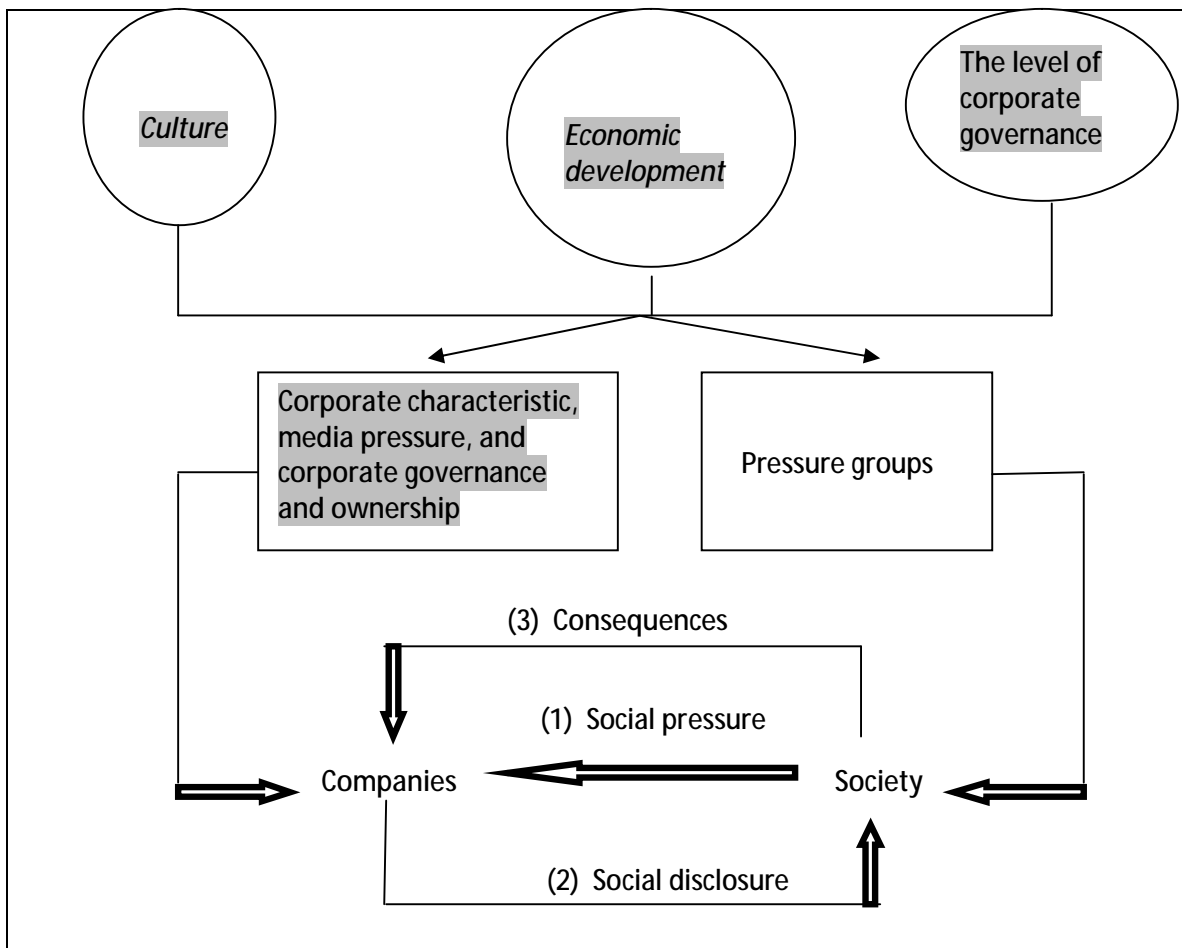
Within these models are included a number of variables that are measured through some databases. Within this study, the focal variable is CSD which is measured in two types of documents; annual reports and corporate responsibility reports. Content analysis technique is used to measure both quantity and quality of disclosure in annual reports. These models are

statistically examined using regression methods and the following section presents summary of the results and conclusion.

## 2. SUMMARY OF FINDINGS AND CONCLUSION

The empirical results provide evidence that supports, to a large extent, a suggested framework. The following figure presents the framework that was the subject of the empirical examination.

Figure 10.1: The suggested framework to explain CSD



Through this framework, three empirical models were examined. The results of the empirical models provide some insights.



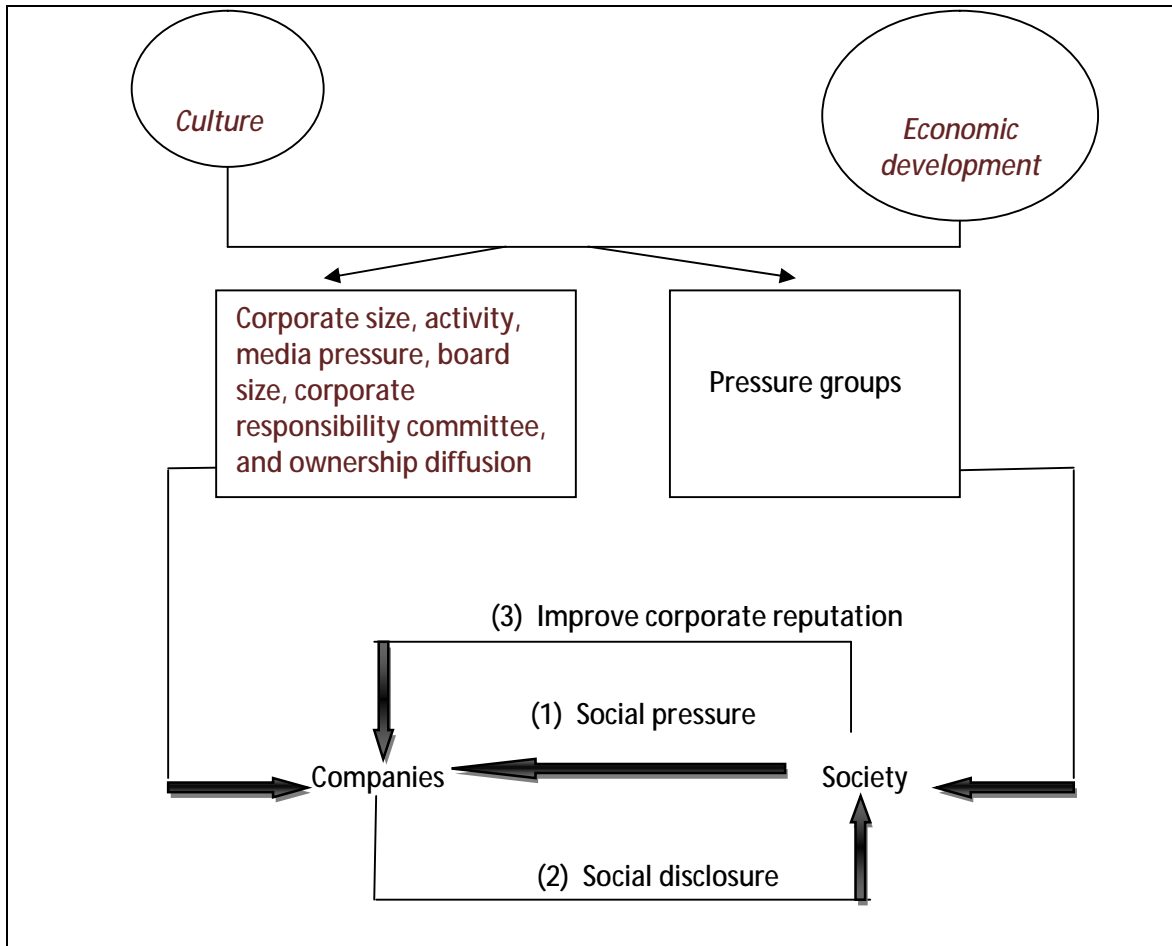
At a country level, both cultural values and economic level determine the level of social responsibility disclosure in the country. This result can be interpreted in the context of a suggested framework as both prevalent cultural values and level of economic development actually determine the degree of community awareness by non-economic issues such as the social and environmental impacts of companies' activities. Consequently, they determine the level of social pressure on companies regarding their social responsibilities. This idea clarifies the general argument in prior literature that CSD is a Western phenomenon, as it indicates a strong association between economic level and CSD in a given country.

At a company level, two models were examined, one for determinants and another for consequences of CSD. Concerning determinants of CSD, it appears that quantity of CSD, and to lesser extent quality of CSD, can be determined according to the following variables: corporate size, type of activity, media pressure, board size, the presence of corporate responsibility committee as a board committee, and ownership diffusion. This result can be interpreted in the context of a suggested framework as the variables of corporate size, type of activities, and media pressure determine the level of social pressure that face a company, and the variables of board size, corporate responsibility committee, and ownership diffusion determine how companies respond to social pressure. The level of CSD is a function of both level of social pressure on companies and how companies respond to this pressure. With regard to the consequences of CSD, the empirical evidence indicates that CSD significantly influences corporate social reputation, while it has no impact on corporate market value. This result is consistent

with a basic idea underlying legitimacy theory, that CSD is a legitimation tool without direct economic benefits.

According to empirical results, the integrated framework can be summarized as follows. In high economic level countries that have cultural values of competitiveness, a community is more interested in the social and environmental impact of corporate activities. So, in these countries, the companies will face a high level of social pressure concerning their social responsibility. This social pressure will be more directed to large industrial companies that have more media coverage. The companies with large corporate size and wider ownership diffusion, and have corporate responsibility committee as a board committee will respond positively to this social pressure. This framework can be explained in the following figure.

Figure 10.2: Modified framework to explain CSD



In addition to this framework, the study addresses some research questions;

- Is there a relationship between quantity and quality of CSD? The correlation analysis in chapter 5 shows a weak correlation between the quantity and quality of disclosure in annual reports, and a medium correlation between quantity and quality of disclosure in corporate responsibility reports. In addition, there is a medium correlation between total quantity and total quality of social disclosure, reflecting that, as a general rule, the relation between quantity and quality of CSD is not strong.

- Is there a relationship between either quantity or quality of CSD in annual reports and produce stand-alone CSR reports? The correlation analysis in chapter 6 shows a weak correlation between producing stand-alone reports and quantity of disclosure in annual reports. This result indicates that the quantity of social disclosure in annual reports is not influenced, to a large extent, by whether companies produce corporate responsibility reports or not.
- Do determinants have the same influence on quantity, quality and stand-alone CSD? It appears that all variables are related to both quantity and quality of CSD, with the exception of media pressure which is not associated with quality of CSD. The results show that these variables are more associated with quantity of disclosure than its quality.
- What are the variables which have the strongest effect on CSD? It appears that corporate responsibility committee, as a governance practice, has a stronger effect on CSD.
- Are the consequences the same for quantity, quality, and stand-alone CSD? The analysis in chapter 8 shows that various disclosure variables are combined in addition to social reputation while these variables are not influenced by corporate financial position.
- Does legitimacy theory, as a dominant theory in CSD literature, provide adequate explanation for the consequences of CSD? It appears that legitimacy theory provides a better theoretical background to explain CSD.

In addition to answering the research questions, the study provides the following additional insights:

- The level of CSD is increasing over time, reflecting growing attention to this type of disclosure. Generally, this increase in the level of CSD is focused on increasing the quantity of this disclosure without paying the same attention to the quality of disclosure.
- Annual report is still an important means of social disclosure and it is not influenced by the growing trend of produce corporate responsibility reports.
- It appears that using third party assurance as a way to add credibility to responsibility reports is a growing practice in the UK business environment.
- Despite the growing interest in environmental issues across the world and the focusing of the majority of studies on environmental disclosure, it appears that employee-related information is the dominant category of social disclosure in annual reports. Consequently, it appears that employees are the most important stakeholders for companies.
- Industrial companies appear to be more interested in CSD than other economic sectors.
- The economic level of a given country is the most important factor that determines the level of CSD in this country.
- CSD at a country level tends to be related with the cultural dimension that focuses on the degree of competitiveness inside the community. This finding suggests that companies may be using CSD as a part of competitiveness strategies.

- The level of corporate governance in a country tends not to be related with the level of CSD in a country. This finding could reflect that good governance mechanisms are a common trend in most countries.
- It appears that using different units to measure quantity of CSD in annual reports (number of sentences, number of pages, and proportion of pages) provides different results for disclosure. Number of sentences seems to provide better results.
- Corporate characteristics and presence of corporate responsibility committee on the board are significantly associated with different measures of quantity of disclosure in annual reports.
- It appears that impact of non-executive directors on corporate social disclosure strategy is not influenced by whether non-executive directors are independent or not.
- It appears that different measures of corporate size are associated with corporate social disclosure confirming the impact of corporate size on disclosure policy.
- It appears that multinational companies are more interested in community concerns in their home country than foreign countries.
- It appears that corporate governance mechanisms play an important role in making companies closer to community needs and ensuring that companies are acting in the interest of all stakeholders not only shareholders.
- It appears that media coverage in both traditional media means and modern media means an (internet) influence CSD.

- The results indicated that the quality of stand-alone corporate responsibility reports has a stronger effect on corporate social reputation. This result draws attention to the need to focus on the development of clear standards or guidelines for the preparation of corporate responsibility reports, and develop the process of reviewing these reports in terms of the existence of independent parties to carry out that process and develop appropriate criteria for such a review.

### 3. LIMITATIONS

(1) As in all accounting studies, the results should be interpreted in the light of proxies that are used to measure different variables, sample and time of study. Ali & Birley, (1999) argued that the distinction between constructs and variables is important. Constructs can be defined as “terms which though not observable either directly or indirectly may be applied or defined as the basis of observables”, while variables can be defined as “an observable entity which is capable of assuming two or more values”. For example, performance is a construct for which sales or return on investment is the variable (Ali & Birley, 1999: 105). (2) The study is dealing with CSD as a total without classifying it to voluntary and compulsory disclosure. (3) Measuring CSD in both annual and stand-alone reports without other disclosure media. (4) Due to time limitation, content analysis technique is not used to measure the quality of stand-alone reports.

### 4. RECOMMENDATIONS FOR FUTURE STUDIES

(1) In-depth study of the relationship between corporate governance and CSD through analyses of the impact of various corporate governance practices on CSD is needed. It is important to analyze this relationship in different environments, as corporate governance practices are varied

among different environments. Also, comparative studies among different countries concerning the relationship between corporate governance and CSD can be conducted. (2) Develop indicators to measure quality of social and environmental disclosure in corporate responsibility reports. Also, studies on the development of guidelines for the assurance process of corporate responsibility reports can be conducted. (3) Within a suggested framework of determinants of CSD, it can study the impact of another variable (competitiveness) on CSD. It can be argued that companies which face a high degree of competitiveness are more sensitive to social pressure and consequently could provide more CSD.



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# APPENDIXES

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## Appendix 1:

### Companies of the sample

<u>2005</u>	<u>2006</u>
1. 3i Group	1. 3i Group
2. Admiral Group	2. Aberdeen Asset Management
3. Aegis Group	3. Admiral Group
4. Alliance & Leicester	4. Aegis Group
5. Alliance Trust (The)	5. Aggreko
6. Alliance UniChem	6. Alliance & Leicester
7. Amec	7. Alliance Trust (The)
8. Amlin	8. Amec
9. Amvescap	9. Amlin
10. Anglo American	10. Amvescap
11. Antofagasta	11. Anglo American
12. ARM Holdings	12. Antofagasta
13. Arriva	13. ARM Holdings
14. Associated British Foods	14. Arriva
15. Associated British Ports Hldgs	15. Associated British Foods
16. AstraZeneca	16. AstraZeneca
17. Aviva	17. Aviva
18. AWG	18. BAE Systems
19. BAA	19. Balfour Beatty
20. BAE Systems	20. Barclays
21. Balfour Beatty	21. Barratt Developments
22. Barclays	22. Bellway
23. Barratt Developments	23. Berkeley Group Holdings
24. BBA Group	24. BG Group
25. Bellway	25. BHP Billiton
26. Berkeley Group Holdings	26. Boots
27. BG Group	27. Bovis Homes Group
28. BHP Billiton	28. BP
29. BOC Group	29. Bradford & Bingley
30. Boots Group	30. British Airways
31. Bovis Homes Group	31. British American Tobacco
32. BP	32. British Energy Group
33. Bradford & Bingley	33. British Land Co
34. Brambles Industries	34. British Sky Broadcasting Group
35. British Airways	35. Brixton
36. British American Tobacco	36. BT Group
37. British Energy Group	37. Bunzl

38. British Land Co	38. Burberry Group
39. British Sky Broadcasting Group	39. Burren Energy
40. Brixton	40. Cable & Wireless
41. BT Group	41. Cadbury Schweppes
42. Bunzl	42. Cairn Energy
43. Burberry Group	43. Caledonia Investments
44. Burren Energy	44. Capita Group
45. Cable & Wireless	45. Carnival
46. Cadbury Schweppes	46. Carphone Warehouse Group
47. Cairn Energy	47. Catlin Group Ltd
48. Caledonia Investments	48. Cattles
49. Capita Group	49. Centrica
50. Carnival	50. Charter
51. Carphone Warehouse Group	51. Close Brothers Group
52. Cattles	52. Cobham
53. Centrica	53. Compass Group
54. Charter	54. Cookson Group
55. Close Brothers Group	55. Corus Group
56. Cobham	56. Daily Mail & General Trust (A Shs)
57. Collins Stewart Tullett	57. Debenhams
58. Compass Group	58. Diageo
59. Corus Group	59. Drax Group
60. CSR	60. DSG International
61. Daily Mail & General Trust (A Shs)	61. Easyjet
62. Diageo	62. Electrocomponents
63. DSG International	63. Emap
64. Easyjet	64. EMI Group
65. Electrocomponents	65. Enterprise Inns
66. Emap	66. First Choice Holidays
67. EMI Group	67. FirstGroup
68. Enterprise Inns	68. Foreign & Col Invest Trust
69. First Choice Holidays	69. Friends Provident
70. FirstGroup	70. GKN
71. Foreign & Col Invest Trust	71. GlaxoSmithKline
72. Friends Provident	72. Greene King
73. Gallaher Group	73. Group 4 Securicor
74. GKN	74. GUS
75. GlaxoSmithKline	75. Hammerson
76. Greene King	76. Hanson
77. Group 4 Securicor	77. Hays
78. GUS	78. HBOS
79. Hammerson	79. Henderson Group

80. Hanson	80. Hochschild Mining
81. Hays	81. Homeserve
82. HBOS	82. HSBC Hldgs
83. Hilton Group	83. ICAP
84. HSBC Hldgs	84. IMI
85. ICAP	85. Imperial Chemical Industries
86. IMI	86. Imperial Tobacco Group
87. Imperial Chemical Industries	87. Inchcape
88. Imperial Tobacco Group	88. Informa
89. Inchcape	89. Inmarsat
90. Informa	90. InterContinental Hotels Group
91. Inmarsat	91. Intermediate Capital Group
92. InterContinental Hotels Group	92. International Power
93. Intermediate Capital Group	93. Intertek Group
94. International Power	94. Invensys
95. Intertek Group	95. Investec
96. Invensys	96. ITV
97. Investec	97. Johnson Matthey
98. ITV	98. JPMorgan Fleming Mercantile IT
99. Jardine Lloyd Thompson Group	99. Kazakhmys
100. Johnson Matthey	100. Kelda Group
101. Johnston Press	101. Kesa Electricals
102. JPMorgan Fleming Mercantile IT	102. Kingfisher
103. Kazakhmys	103. Ladbroke's
104. Kelda Group	104. Land Securities Group
105. Kesa Electricals	105. Legal & General Group
106. Kingfisher	106. Liberty International
107. Land Securities Group	107. Lloyds TSB Group
108. Legal & General Group	108. LogicaCMG
109. Liberty International	109. London Stock Exchange Group
110. Lloyds TSB Group	110. Lonmin
111. LogicaCMG	111. Man Group
112. London Stock Exchange	112. Mapeley
113. Lonmin	113. Marks & Spencer Group
114. Man Group	114. Meggitt
115. Marks & Spencer Group	115. Michael Page International
116. Meggitt	116. Millennium & Copthorne Hotels
117. Michael Page International	117. Mitchells & Butlers
118. Millennium & Copthorne Hotels	118. Morrison (Wm) Supermarkets
119. Misys	119. National Express Group
120. Mitchells & Butlers	120. National Grid
121. Morrison (Wm) Supermarkets	121. Next
122. MyTravel Group	122. Northern Rock



123.National Express Group	123.Northumbrian Water Group
124.National Grid	124.Old Mutual
125.Next	125.Partygaming
126.Northern Rock	126.Pearson
127.Northumbrian Water Group	127.Pennon Group
128.O2	128.Persimmon
129.Old Mutual	129.Petrofac
130.Partygaming	130.Premier Foods
131.Pearson	131.Provident Financial
132.Pennon Group	132.Prudential
133.Persimmon	133.Punch Taverns
134.Pilkington	134.Qinetiq Group
135.Provident Financial	135.Rank Group
136.Prudential	136.Reckitt Benckiser
137.Punch Taverns	137.Redrow
138.Rank Group	138.Reed Elsevier
139.Reckitt Benckiser	139.Regus Group
140.Reed Elsevier	140.Rentokil Initial
141.Regus Group	141.Resolution
142.Rentokil Initial	142.Reuters Group
143.Resolution	143.Rexam
144.Reuters Group	144.Rio Tinto
145.Rexam	145.RIT Capital Partners
146.Rio Tinto	146.Rolls-Royce Group
147.RIT Capital Partners	147.Royal & Sun Alliance Insurance Group
148.Rolls-Royce Group	148.Royal Bank Of Scotland Group
149.Royal & Sun Alliance Insurance Group	149.Royal Dutch Shell A
150.Royal Bank Of Scotland Group	150.SABMiller
151.Royal Dutch Shell A	151.Sage Group
152.SABMiller	152.Sainsbury (J)
153.Sage Group	153.Schroders
154.Sainsbury (J)	154.Scottish & Newcastle
155.Schroders	155.Scottish & Southern Energy
156.Scottish & Newcastle	156.Scottish Mortgage Inv Tst
157.Scottish & Southern Energy	157.Scottish Power
158.Scottish Mortgage Inv Tst	158.Serco Group
159.Scottish Power	159.Severn Trent
160.Serco Group	160.Shire
161.Severn Trent	161.SIG
162.Shire	162.Signet Group
163.Signet Group	163.Slough Estates
164.Slough Estates	164.Smith & Nephew
165.Smith & Nephew	165.Smiths Group
166.Smiths Group	166.St.James Place

167. St. James's Place Capital	167. Stagecoach Group
168. Stagecoach Group	168. Standard Chartered
169. Standard Chartered	169. Standard Life
170. SVG Capital	170. SVG Capital
171. Tate & Lyle	171. Tate & Lyle
172. Taylor Nelson Sofres	172. Taylor Woodrow
173. Taylor Woodrow	173. Tesco
174. Tesco	174. Tomkins
175. Tomkins	175. Travis Perkins
176. Travis Perkins	176. Trinity Mirror
177. Trinity Mirror	177. Tullett Prebon
178. Tullow Oil	178. Tullow Oil
179. Unilever	179. Unilever
180. United Business Media	180. United Business Media
181. United Utilities	181. United Utilities
182. Vedanta Resources	182. Vedanta Resources
183. Virgin Mobile Holdings (UK)	183. Venture Production
184. Viridian Group	184. Vodafone Group
185. Vodafone Group	185. Whitbread
186. Whitbread	186. William Hill
187. William Hill	187. Wimpey (George)
188. Wimpey (George)	188. Witan Inv Tst
189. Witan Inv Tst	189. Wolseley
190. Wolseley	190. Wolverhampton & Dudley
191. Wolverhampton & Dudley	191. Wood Group (John)
192. Wood Group (John)	192. WPP Group
193. WPP Group	193. Xstrata
194. Xstrata	194. Yell Group
195. Yell Group	195. Abbot Group
196. 888 Holdings	196. Aberforth Smaller Companies Tst
197. Abbot Group	197. Aga Foodservice Group
198. Aberdeen Asset Management	198. Aquarius Platinum
199. Aberforth Smaller Companies Tst	199. Ashtead Group
200. Aga Foodservice Group	200. Assura
201. Aggreko	201. Atkins (WS)
202. Aquarius Platinum	202. Autonomy Corporation
203. Ashtead Group	203. Aveva Group
204. Atkins (WS)	204. Avis Europe
205. Autonomy Corporation	205. Babcock International Group
206. Avis Europe	206. Bankers Investment Trust
207. Babcock International Group	207. BBA Aviation
208. Bankers Investment Trust	208. Beazley Group
209. Benfield Group	209. Big Yellow Group
210. Bodycote International	210. Bodycote International

211. Brit Insurance Holdings  
 212. British Empire Sec & General Tst  
 213. Brown (N.) Group  
 214. BSS Group  
 215. Candover Investments  
 216. Capital & Regional  
 217. Carillion  
 218. Carpetright  
 219. Catlin Group Ltd  
 220. City of London Investment Trust  
 221. CLS Holdings  
 222. Colt Telecom Group  
 223. Computacenter  
 224. Cookson Group  
 225. Countrywide  
 226. Crest Nicholson  
 227. Croda International  
 228. Dairy Crest Group  
 229. Dana Petroleum  
 230. Davis Service Group  
 231. De La Rue  
 232. Derwent Valley Hldgs  
 233. Dimension Data Holdings  
 234. Enodis  
 235. Euromoney Institutional Investors  
 236. Expro International Group  
 237. F&C Asset Management  
 238. Filtrona  
 239. Findel  
 240. Forth Ports  
 241. Go-Ahead Group  
 242. Grainger Trust  
 243. Great Portland Estates  
 244. Greggs  
 245. Halfords Group  
 246. Halma  
 247. Helphire Group  
 248. Henderson Group  
 249. Hikma Pharmaceuticals  
 250. Hiscox  
 251. HMV Group  
 252. Homeserve  
 253. IG Group Holdings  
 254. Insight Foundation Property Trust Ltd  
 255. Interserve  
 256. iSOFT Group

211. Brit Insurance Holdings  
 212. British Empire Sec & General Tst  
 213. Britvic  
 214. Brown (N.) Group  
 215. BSS Group  
 216. Capital & Regional  
 217. Carillion  
 218. Carpetright  
 219. Chemring Group  
 220. City of London Investment Trust  
 221. CLS Holdings  
 222. Collins Stewart  
 223. COLT Telecom Group SA  
 224. Countrywide  
 225. Crest Nicholson  
 226. Croda International  
 227. CSR  
 228. Daejan Hdg  
 229. Dairy Crest Group  
 230. Dana Petroleum  
 231. Davis Service Group  
 232. De La Rue  
 233. Derwent Valley Hldgs  
 234. Dimension Data Holdings  
 235. Electra Private Equity  
 236. Enodis  
 237. Euromoney Institutional Investors  
 238. Expro International Group  
 239. F&C Asset Management  
 240. Filtrona  
 241. Findel  
 242. Forth Ports  
 243. Galiform  
 244. Go-Ahead Group  
 245. Grainger Trust  
 246. Great Portland Estates  
 247. Greggs  
 248. Halfords Group  
 249. Halma  
 250. Headlam Group  
 251. Helical Bar  
 252. Helphire Group  
 253. Hikma Pharmaceuticals  
 254. Hiscox  
 255. HMV Group  
 256. Hunting

257.JJB Sports	257.IG Group Holdings
258.Kensington Group	258.Insight Foundation Property Trust Ld
259.Kier Group	259.Interserve
260.Laing (John)	260.Jardine Lloyd Thompson Group
261.Laird Group	261.JJB Sports
262.Luminar	262.JKX Oil & Gas
263.Mapeley	263.Johnston Press
264.Marshalls	264.JPMorgan European Invest Tst (Gwth Shs)
265.McCarthy & Stone	265.JPMorgan Japanese Inv. Trust
266.Minerva	266.Keller
267.MITIE Group	267.Kier Group
268.Monks Investment Trust PLC	268.Laird Group
269.Morgan Crucible Co	269.Luminar
270.Morgan Sindall	270.Marshalls
271.Murray Income Trust (Ord)	271.McAlpine (Alfred)
272.Murray International Trust (Ord)	272.Melrose PLC
273.Northern Foods	273.Minerva
274.Northgate	274.Misys
275.Northgate Information Solutions	275.MITIE Group
276.Paragon Group of Companies	276.Monks Investment Trust PLC
277.Pendragon	277.Morgan Crucible Co
278.Petrofac	278.Morgan Sindall
279.Premier Farnell	279.Mouchel Parkman
280.Premier Foods	280.Murray Income Trust (Ord)
281.Premier Oil	281.Murray International Trust (Ord)
282.PZ Cussons	282.MyTravel Group
283.Quintain Estates and Development	283.Northern Foods
284.Randgold Resources	284.Northgate
285.Rathbone Brothers	285.Northgate Information Solutions
286.Redrow	286.Paragon Group of Companies
287.Renishaw	287.Paypoint
288.Rotork	288.Pendragon
289.Savills	289.Premier Farnell
290.SCI Entertainment Group	290.Premier Oil
291.Scottish Investment Trust	291.PZ Cussons
292.Shaftesbury	292.Quintain Estates and Development
293.Shanks Group	293.Randgold Resources
294.SIG	294.Rathbone Brothers
295.SkyePharma	295.Renishaw
296.Smith (DS)	296.Restaurant Group
297.Smith (WH) Group	297.Rightmove
298.Soco International	298.Rotork
299.Spectris	299.RPS Group
300.Spirax-Sarco Engineering	300.Savills
301.Spirent	301.Scottish Investment Trust
302.SSL International	302.Shaftesbury

303.St.Modwen Properties	303.Shanks Group
304.Temple Bar Inv Tst	304.Smith (DS)
305.Topps Tiles	305.Soco International
306.TR Property Investment Trust	306.Spectris
307.Ultra Electronics Holdings	307.Speedy Hire
308.Unite Group	308.Spirax-Sarco Engineering
309.Venture Production	309.Spirent Communications
310.Victrex	310.SSL International
311.VT Group	311.St.Modwen Properties
312.Weir Group	312.SThree
313.Wellington Underwriting	313.Taylor Nelson Sofres
314.Wetherspoon(J D)	314.Temple Bar Inv Tst
315.Woolworths Group	315.Topps Tiles
316.Workspace Group	316.TR Property Investment Trust
317.Yule Catto & Co	317.UK Coal
	318.Ultra Electronics Holdings
	319.Unite Group
	320.Victrex
	321.VT Group
	322.Warner Estate Hldgs
	323.Weir Group
	324.Wetherspoon(J D)
	325.WH Smith
	326.Woolworths Group
	327.Workspace Group

## Appendix 2:

### Companies in pilot study

2005		2006	
company name	sector	company name	sector
1. 3i Group	Speciality & other finance	1. Arriva	transport
2. Admiral Group	insurance	2. Associated British Foods	food producers & processors
3. Aegis Group	Media & photography	3. AstraZeneca	pharmaceuticals
4. Alliance & Leicester	banks	4. Aviva	life assurance
5. Alliance Trust (The)	investment companies	5. BAE Systems	Aerospace & defence
6. Alliance UniChem	health	6. British Land Co	real estate
7. AWG	water	7. British Sky Broadcasting Group	media
8. BAA	transport	8. Brixton	real estate
9. BAE Systems	Aerospace & defence	9. BT Group	telecommunication services
10. Balfour Beatty	Construction & building material	10. Bunzl	support services
11. Barclays	banks	11. Burberry Group	general retailers
12. Barratt Developments	Construction & building material	12. Cobham	Aerospace & defence
13. BP	Oil & gas	13. Compass Group	restaurants pubs & breweries
14. Bradford & Bingley	banks	14. Drax Group	electricity
15. Brambles Industries	support services	15. DSG International	general retailers
16. British Airways	Airline & airports	16. Intertek Group	support services
17. Cable & Wireless	telecommunication services	17. Invensys	engineering & machinery
18. Cadbury Schweppes	food producers & processors	18. Investec	Speciality & other finance
19. Carnival	Travel & leisure	19. LogicaCMG	Software & computer services
20. Carphone Warehouse Group	general retailers	20. Michael Page International	support services
21. Cattles	speciality & other finance	21. Millennium & Copthorne Hotels	leisure, entertainment & hotels
22. Centrica	gas distribution	22. Persimmon	Construction & building material
23. Electrocomponents	support services	23. Petrofac	Construction & building material
24. Emap	Media & photography	24. Premier Foods	food producers & processors
25. GKN	automobiles & parts	25. Rentokil Initial	support services
26. GlaxoSmithKline	pharmaceuticals	26. Resolution	life assurance
27. Greene King	leisure, entertainment & hotels	27. Rio Tinto	mining
28. Group 4 Securicor	diversified industrials	28. Severn Trent	water
29. GUS	general retailers	29. Shire	pharmaceuticals
30. ICAP	Speciality & other finance	30. SIG	support services
31. IMI	engineering & machinery	31. Unilever	food producers & processors
32. Inmarsat	telecommunication services	32. United Business Media	Media & photography

33. Invensys	engineering & machinery	33. Britvic	beverages
34. Investec	Speciality & other finance	34. Brown (N.) Group	general retailers
35. ITV	Media & photography	35. Dana Petroleum	Oil & gas
36. Misys	software & computer services	36. Davis Service Group	business support services
37. Mitchells & Butlers	leisure, entertainment & hotels	37. De La Rue	support services
38. Morrison (Wm) Supermarkets	Food & drug retailers	38. Derwent Valley Hldgs	real estate
39. MyTravel Group	leisure, entertainment & hotels	39. Dimension Data Holdings	Software & computer services
40. Pilkington	Construction & building material	40. Electra Private Equity	investment companies
41. Provident Financial	Speciality & other finance	41. Findel	general retailers
42. Prudential	life assurance	42. Forth Ports	transport
43. Sage Group	computer software services	43. Galiform	household goods & textiles
44. Great Portland Estates	real estate	44. Luminar	leisure, entertainment & hotels
45. Greggs	Food & drug retailers	45. Marshalls	Construction & building material
46. JJB Sports	general retailers	46. Northern Foods	food producers & processors
47. McCarthy & Stone	Construction & building material	47. Northgate	transport
48. Minerva	real estate	48. Rathbone Brothers	Speciality & other finance
49. MITIE Group	support services	49. Renishaw	electronic & electrical equipment
50. Smith (DS)	forestry & paper	50. Rotork	engineering & machinery
51. Smith (WH) Group	general retailers	51. RPS Group	support services
52. Soco International	Oil & gas	52. Spirent Communications	information technology
53. Unite Group	real estate	53. SSL International	health
54. Venture Production	Oil & gas	54. TR Property Investment Trust	investment companies
55. Victrex	chemicals	55. UK Coal	mining
56. VT Group	Aerospace & defence	56. Workspace Group	real estate

## Appendix 3

### Sample of Simstat outputs 2005

INTER-RATERS: ENVS\_1 by ENVS

INTER-RATER AGREEMENT MEASURES

Nominal level

Pct agreement = 80.4%

Cohen's Kappa = .795

Scott's pi = .794

Free marginals = .798

Ordinal level

Krippendorff's r bar = .999

Krippendorff's R = .999

Free marginals = .999

VALID CASES: 56      MISSING CASES: 0

INTER-RATERS: COMS\_1 by COMS

INTER-RATER AGREEMENT MEASURES

Nominal level

Pct agreement = 89.3%

Cohen's Kappa = .888



Scott's pi = .888  
Free marginals = .890

Ordinal level

Krippendorff's r bar = .999  
Krippendorff's R = .999  
Free marginals = .999

VALID CASES: 56      MISSING CASES: 0

## Appendix 4

Sample of ReCal outputs 2005

### ReCal 0.1 Alpha for 2 Coders results for file "envs.csv"

File size: 350 bytes

N columns: 2

N variables: 1

N coders per variable: 2

	<b>Percent Agreement</b>	<b>Scott's Pi</b>	<b>Cohen's Kappa</b>	<b>Krippendorff's Alpha</b>	<b>N Agreements</b>	<b>N Disagreements</b>	<b>N Cases</b>	<b>N Decisions</b>
Variable 1 (cols 1 & 2)	80.4%	0.794	0.795	0.796	45	11	56	112

### ReCal 0.1 Alpha for 2 Coders results for file "coms.csv"

File size: 360 bytes

N columns: 2

N variables: 1

N coders per variable: 2

	<b>Percent Agreement</b>	<b>Scott's Pi</b>	<b>Cohen's Kappa</b>	<b>Krippendorff's Alpha</b>	<b>N Agreements</b>	<b>N Disagreements</b>	<b>N Cases</b>	<b>N Decisions</b>
Variable 1	89.3%	0.888	0.888	0.889	50	6	56	112

(cols 1 & 2)								
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## ReCal 0.1 Alpha for 2 Coders results for file "emps.csv"

File size: 382 bytes

N columns: 2

N variables: 1

N coders per variable: 2

	<b>Percent Agreement</b>	<b>Scott's Pi</b>	<b>Cohen's Kappa</b>	<b>Krippendorff's Alpha</b>	<b>N Agreements</b>	<b>N Disagreements</b>	<b>N Cases</b>	<b>N Decisions</b>
Variable 1 (cols 1 & 2)	89.3%	0.889	0.89	0.89	50	6	56	112